

AGRICULTURAL OUTLOOK

September 1989

• Economic Research Service
United States Department of Agriculture



Free Trade in Rice:
Gains Exceed Costs
See page 30

AGRICULTURAL OUTLOOK

September 1989/AO-156

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Economics Editor—Gregory Gajewski (202) 786-3313
Associate Editor—Patricia F. Singer (202) 786-3313
Consulting Editor—Clark Edwards (202) 786-3313
Managing Editor—Eric Sorensen (202) 786-1494
Editorial Staff—Shirley Hammond
Statistical Coordinator—Ann Duncan (202) 786-3313
Design Coordinator—Carolyn Riley
Production Staff—Karen Sayre
Composition—Joyce Bailey

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In Brief. . .

News of Food Prices, FmHA Guarantees, World Rice Trade

Congress and the President have authorized disaster assistance for farmers hit by adverse weather conditions this year, but the assistance raises questions about the role of federally subsidized crop insurance. Farmers often decide against crop insurance in the belief that emergency assistance will be granted anyway if a widespread disaster occurs. Even though the 1980 Federal Crop Insurance Act was designed to phase out disaster assistance, three ad hoc disaster assistance acts have been passed since then.

Forecasters are divided on whether the U.S. economy is headed for a brief slowdown or a downturn. Agriculture is likely to find the general economy mildly supportive no matter which of the two outlooks materializes. Lower interest rates and perhaps lower exchange rates, common to both outlooks, would reduce farm costs and boost agricultural exports.

USDA forecasts that world ending stocks of wheat, coarse grains, rice, and cotton will tighten in 1989/90. Wheat and rice prices are likely to be up. World soybean production, however, probably will rise above consumption, increasing ending stocks.

U.S. grain and oilseed production in 1989/90 likely will increase markedly over last year. But adverse weather has again taken a toll this year. U.S. wheat and rice supplies are forecast to remain tight. Feed grain ending stocks could drop again as use outpaces production. U.S. cotton stocks likely will return to lower levels, given a reduced crop and rising exports.

For 1989, the Consumer Price Index for food is expected to average 5 to 7 percent above 1988. Prices for red meats, poultry, eggs, fresh vegetables, and processed vegetables rose sharply in the first half of the year. Although most of these are expected to decline in the second half, overall food prices will be about steady.



As the 1980's come to a close, food production has recovered in many of the countries requiring food aid. Despite the gains, global food aid needs are still greater than at the height of the 1984/85 African famine. Still, estimated 1989/90 cereal needs of 15.4 million tons are down from the 17.1 million tons needed in 1988/89 and the record 19.5 million tons needed in 1987/88.

Because of recent political unrest, some of China's agricultural imports probably will decline, and total farm trade may shrink. Imports of raw sugar and farm inputs fell in the first half of the year, and are expected to remain lower in the second half. Yet wheat imports should stay high, and cotton imports may drop only slightly. Longer term, economic sanctions and foreign investors' concerns about stability may significantly slow China's rural development.

For the last 2 years, economic conditions have deteriorated rapidly in Brazil, Latin America's largest debtor and agricultural producer. Among other factors, the government's austerity measures have

been cutting agricultural subsidies, including those for wheat and sugarcane. Should current trends continue, growth in Brazil's agricultural output may slow. During 1980-88, coffee and cocoa production registered almost no growth, while the highly subsidized wheat and sugarcane sectors grew the fastest.

Negotiators in the Uruguay Round of the GATT have agreed to pursue policy reforms that could phase down worldwide government support of agriculture. According to several research studies, the reforms could have a major impact on the world rice market. If all trade-distorting policies for agriculture, including rice, were removed, the studies indicate that world income would rise. Several countries would expand rice output, while others would produce less. In the near term, world rice prices and volume traded would rise, as opening Japan's market would dominate other forces.

U.S. rice growers in California likely would gain export markets, while those in the South might lose them. Thailand would gain, but low-income countries that depend on food aid could experience a decline in living standards.

U.S. rural areas are making an economic comeback. Nonmetro employment grew by 941,000 in the second quarter of 1989 compared to a year earlier, a 3.9-percent increase. Metro employment grew by 1.8 percent. The second half of 1988 marked the first time since the 1980-82 recession that nonmetro employment growth outpaced metropolitan growth.

Commercial banks have substantially increased their farm lending, owing to their participation in the farm loan guarantee programs of USDA's Farmers Home Administration, according to a recent Economic Research Service study. Yet only about one-fourth of the rural banks that are potential users of the loan guarantee program actually participated in it during fiscal 1988.



Agricultural Economy

Crop Insurance Falls Short Of Expectations

Weather is one of the major uncontrollable factors in farming. Last year, drought severely reduced yields across a large portion of the U.S. This year, too much rain in parts of the Eastern Corn Belt and the South, along with dry weather elsewhere, likely will cause yields to dip below trend. When yields fall significantly because of natural disasters, federally subsidized crop insurance and disaster assistance can help protect farmers from catastrophic financial losses.

Crop insurance offered through the Federal Crop Insurance Corporation (FCIC) allows participants to choose among three yield-guarantee levels and three crop-price levels. Thus, farmers can select, in advance, the amount they want to be paid for each bushel that their yield is below the yield guarantee.

Although policymakers in the early 1980's believed that crop insurance should replace disaster assistance, large FCIC losses and low enrollment have kept crop insurance from meeting expectations. Many farmers did not buy insurance, and the droughts of 1986 and 1988 resulted in billions of dollars being paid in ad hoc disaster assistance.

At the same time, FCIC losses have reached record highs. The losses partly

reflect expanded crop and county insurance coverage put in place by the 1980 Federal Crop Insurance Act. With greater coverage, information is often not available for setting premiums to reflect the yield risks facing individual farmers.

As a result, the premiums some farmers face are too high in proportion to their risk of crop loss, causing them not to participate. Yet other farmers stand to collect insurance payoffs more often than their premiums would suggest, causing them nearly always to participate. Overall, high-risk farms represent a large portion of the insured acreage.

Crop Insurance Was To Replace Disaster Assistance

Many of the recent disappointments with crop insurance stem from its inability to meet the goals set out in the 1980 Federal Crop Insurance Act. The act aimed to create an expanded and improved crop insurance program to replace disaster assistance.

Before the 1980 act, the Federal crop insurance program operated only in selected counties and for selected crops, and farmers paid the full cost of premiums. Increases in enrollment were very slow because of restrictions on policy writing in high-risk areas.

Under the 1980 act, the FCIC was permitted to insure any agricultural commodity grown in the U.S., provided yield histories for the area were available. To encourage greater participation, the act allowed 30-percent subsidies of premiums on the 50- and 65-percent yield guarantee levels, and a somewhat smaller subsidy on the 75-percent yield guarantee level.

The program was to run on an actuarially sound basis and to rely, as much as possible, on the private sector for delivery. Private companies were paid commissions for crop insurance sales, and their share of potential crop insurance losses was limited.

Although the act's writers envisioned a 50-percent participation rate by 1990, enrollment has risen much more slowly. Coverage expanded from 26 crops in 1980 to more than 50 crops last year, but less than 30 percent of eligible acreage was enrolled.

While participation rates for 1989 are expected to approach 40 percent, some of the increase is due to the Disaster Assistance Act of 1988, which required farmers who received disaster payments to buy crop insurance.

Program Has Suffered Heavy Losses in Eighties

The crop insurance program also has been plagued by heavy losses during the 1980's. Prior to the 1980 act, total indemnities for all crops were about 96 percent of total premiums. This relatively healthy performance occurred mainly because coverage was limited.

But with expanded geographic and commodity coverage, total payouts between 1981 and 1986 exceeded total premiums, including Government subsidies, by 40 percent. For 1988, crop insurance losses are estimated to have been \$586 million, the worst performance in the program's 50-year history.

Emergency Assistance Programs Limit Insurance Enrollment

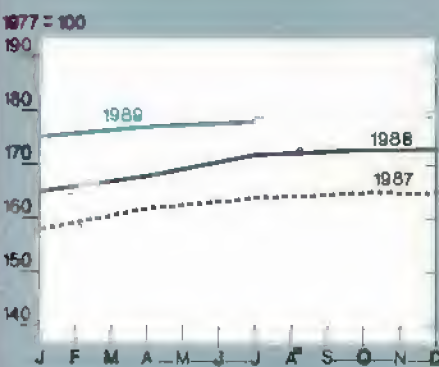
Farmers often decide against crop insurance enrollment, believing that emergency assistance will be granted anyway if a widespread disaster occurs. And, indeed, when a disaster takes place, low crop insurance participation in a stricken area has historically increased the likelihood that Congress will enact emergency legislation.

This catch-22 has operated repeatedly in the 1980's. Even though the 1980 act was designed to phase out disaster assistance, three ad hoc disaster assistance acts have been passed since then. Almost \$4.0 billion was paid to drought-affected farmers under the Disaster Assistance Act of 1988 alone. And in August, Congress and the President authorized disaster assistance for producers of 1989 crops. The assistance will probably amount to \$897 million.

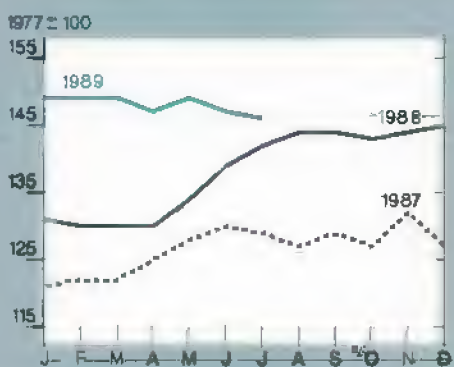
Coupled with the catch-22, other factors make crop insurance unattractive to farmers and, at the same time, promote FCIC losses. Because historical production data are often unavailable for individual farmers, premium rates are often based on the average yields for the area. This means that farmers with lower expected yields and greater yield variability than the area average receive more protection

Prime Indicators of the U.S. Agricultural Economy

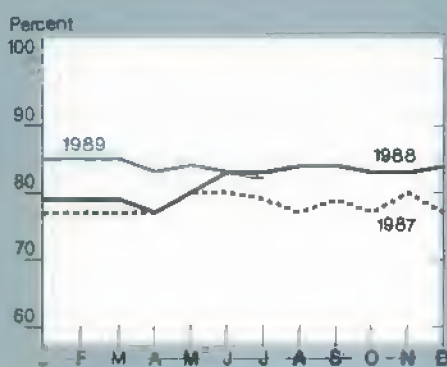
Index of prices paid by farmers¹



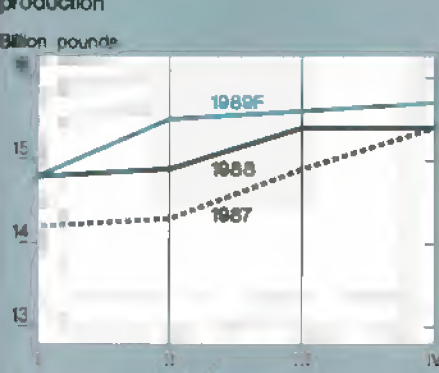
Index of prices received by farmers²



Ratio of prices received to prices paid



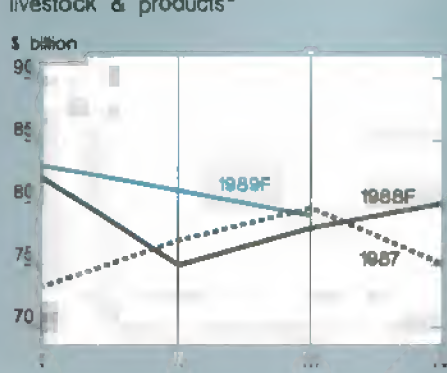
Red meat & poultry³ production



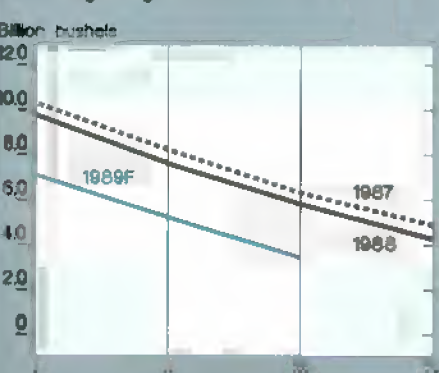
Red meat & poultry consumption, per capita^{3,4}



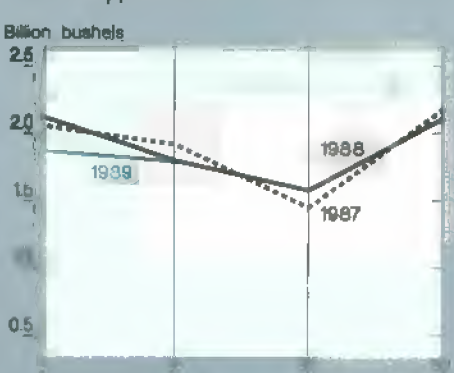
Cash receipts from livestock & products⁵



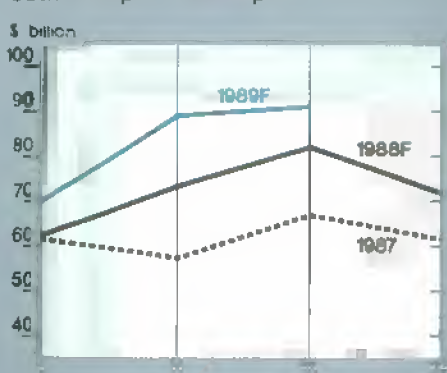
Corn beginning stocks⁶



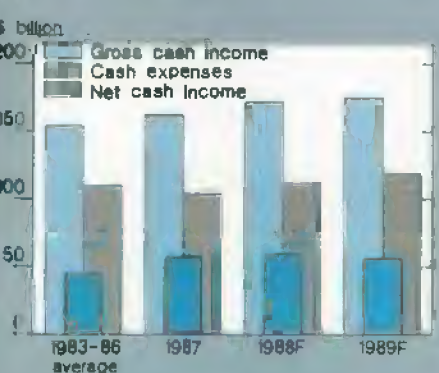
Corn disappearance⁶



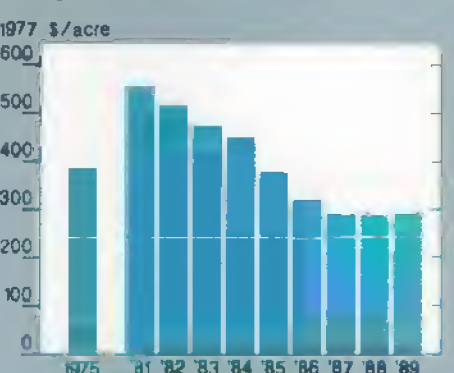
Cash receipts from crops⁵



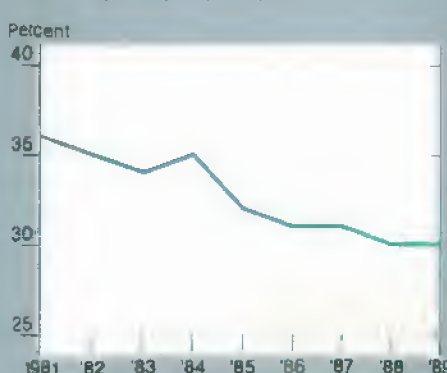
Farm net cash income



Average real value of farm real estate



Farm value/retail food costs



¹For commodities and services. Interest taxes, and wages. ²Beginning in 1986 data are only available quarterly. ³For all farm products. ⁴Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. ⁵Retail weight. ⁶Seasonally adjusted annual rate. I=Dec.-Feb., II=Mar.-May, III=June-Aug., IV=Sept.-Nov. F=forecast

Crop Insurance Options: None Emerges as Preferable

Option	Advantages	Disadvantages
Compulsory purchase of crop insurance for commodity program participants	<p>Would ensure high participation rates for crop insurance</p> <p>High participation likely would reduce need for ad hoc disaster assistance</p> <p>More equitable to farmers who experience isolated disasters</p>	<p>Would lock out producers with no base acreage; does not address nonprogram crops</p> <p>Costs may be viewed as higher than benefits, reducing program participation in certain areas and increasing need for ad hoc disaster assistance</p>
Free crop insurance for commodity program participants	<p>Depending on level of coverage, commodity program participation would increase, reducing the need for ad hoc disaster assistance</p>	<p>Could encourage producers to grow crops on more marginal land</p> <p>Some farmers might reduce input use drastically just to collect crop insurance</p> <p>Would lock out producers with no base acreage; does not address nonprogram crops</p>
Replacement of crop insurance with a permanent disaster payment program	<p>Would be available to all producers</p>	<p>Could promote production in high-risk areas, likely producing inefficiencies in resource use and production</p>
Replacement of deficiency payment programs with a target revenue program	<p>Assures income stability to farmers</p>	<p>Using program yields instead of actual yields could cause per acre revenues to drop, decreasing program participation and increasing the probability of disaster assistance</p> <p>Establishing coverage equitable to producers would be difficult</p>

than farmers with above-average yields and below-average variability.

The higher risk farmers—those with lower-than-average yields and greater yield variability—tend to stay in the program because they have above-average chances of collecting indemnities. Those with less-than-average chances of collecting often opt not to purchase insurance. As a result, insurance payouts tend to exceed premiums.

Over time, premium rates tend to reflect the risks of those farmers participating, which compounds the problem. More yield data is being collected, which should gradually improve the premium-setting mechanisms.

From the perspective of farmers whose yields do not vary much, the yield guarantees are too low. Farmers with the maximum FCIC coverage must have yield losses greater than 25 percent to collect. But for many producers with fairly steady yield histories, a production loss in excess of 25 percent is rare, mak-

ing crop insurance seem unnecessary. In addition, some farmers say that the premiums are too costly relative to the expected payouts.

Some farmers use alternative methods to stabilize revenues. The methods include crop diversification, yield-risk-reducing technologies such as irrigation, use of forward markets, and commodity programs.

Other Options Have Pluses And Minuses

Ongoing research suggests that other options could be designed—such as permanent disaster assistance, compulsory or free crop insurance for commodity program participants, and a target revenue program—so that the costs and benefits to farmers would be similar to those under the current program. These options could cost the Government about the same as the current program.

Each option has advantages and disadvantages (see the accompanying table), but none emerges as clearly preferable to all concerned. A special article in the October *Agricultural Outlook* will examine these policy options. [Joy Harwood and Joe Glauber (202) 786-1840]

Livestock, Dairy, and Poultry Overview

The July Cattle report indicated that cattle producers intend to expand herds modestly. Beef supplies probably will drop by the fourth quarter as heifers are retained and nonfed production falls. Per capita pork supplies in second-half 1989 may be near a year ago. Poultry production likely will accelerate during the second half, reflecting positive net returns.

Beef prices are expected to remain above a year earlier, pork prices to be steady, and wholesale poultry prices to decline.

Retail dairy prices probably will continue climbing in the second half, but perhaps more slowly than during the first half if production recovers. Egg production likely will move above a year earlier by the fourth quarter, and prices probably will slip from third-quarter highs.

Cattle Herd Likely To Expand

Cattle inventories at the beginning of July indicated probable herd expansion. The number of beef cows that have calved was unchanged, while replacement beef heifers increased 4 percent from a year earlier. The 1989 calf crop, estimated at 40.7 million head, was unchanged from 1988.

For the 13 reporting States, supplies of feeder cattle outside feedlots at the beginning of July increased 1 percent from 1988, following a 2-percent drop in first-half placements into feedlots.

The current outlook—increasing slaughter cattle prices from late summer through fall, and lower grain prices—is providing support to the feeder cattle market. Improved forage conditions also have boosted this market by affording producers the option to keep cattle on pasture. The high prices currently necessary to bid feeder cattle away from pasture may be too great to ensure profitability in the feedlots without much lower grain prices.

Slaughter Cattle Prices To Improve

Cattle prices began to move up in late July, partially because of expected lower marketings in late summer and fall. For July, marketings were lower and placements higher than a year earlier in the 7 States. Nevertheless, there was a seasonal decline in feedlot inventories. They remained 4 percent below last year on August 1.

June slaughter weights increased by more than 10 pounds per head from both a month and a year earlier. This summer saw large discounts (as much as \$15 per cwt) for some carcasses. These resulted from sluggish movement of cattle out of feedlots and marketing of more heavily finished cattle.

The boxed beef cutout value for Choice carcasses has remained low since early July, falling to \$111.06 per cwt by late July for carcasses weighing 550-700 pounds. Prices increased during August in anticipation of Labor Day buying by retailers.

After 6 months of increasing retail beef prices, the summer brought a temporary decline. Extensive price specials, especially on lower valued cuts, pushed down retail prices during June and July. But with expectations of lower beef production this fall, the outlook is for higher retail prices in the fourth quarter. Beef demand is seasonally strong in the fall.

Lower Hog Prices Ahead

Lower prices are in store for hog producers. Barrow and gilt prices will weaken and likely remain under pressure throughout the fall as slaughter turns seasonally higher in September. Weekly kills could approach 1.9 million head by November, compared with a midsummer rate of about 1.5 million. This will put downward pressure on fresh pork prices, prompting packers to bid less for hogs.

Barrows and gilts at the 7 markets traded in the high \$40's per cwt in midsummer, and could decline \$10 per cwt before bottoming in the fall. Fourth-quarter prices are expected to average in the high \$30's, close to a year earlier.

The pork market this fall will be dominated by hams, which compete with turkeys for holiday features. Turkey supplies will be up substantially from a year earlier, limiting advances in ham prices. Furthermore, ham stocks could be record large at that time. If seasonal strength in ham prices is subdued, hog prices will be put under more downward pressure.

Although feed costs are expected to decline this fall, returns to hog producers likely will remain below breakeven. The extended period of poor returns could cause producers to reduce breedings below previous intentions. At the beginning of June, September-November farrowing intentions showed a 1-percent increase from a year earlier. Cutbacks in breedings and farrowings this fall would reduce pork production after first-quarter 1990.

Broiler Prices To Weaken

The strong wholesale broiler prices of early 1989 declined by August to less than last summer, and about 7 percent more broiler meat was produced during the second quarter. Prices likely will continue declining in the fall as more

broilers are produced. Total production for 1989 is expected to be 6-7 percent above a year earlier.

For the third quarter, egg sets and chick placements suggest production increases of 7-9 percent. However, July broiler production was estimated to be 11-13 percent greater than a year earlier, with slaughter weights running higher, perhaps reflecting the cooler summer weather.

The 12-city composite wholesale price for the third quarter is expected to drop to 60-62 cents per pound, below the 66 cents of a year earlier. If large production increases continue for the remainder of the year, further price drops could result. The 12-city wholesale price for all of 1989 is expected to average 60-62 cents.

Broiler Exports at Record Rate

U.S. broiler exports for the first 5 months of the year, at 376 million pounds, were up nearly 30 percent from a year earlier. Parts made up 95 percent of the exports, compared with 85 percent during the same period a year before. Lower priced, mainly dark-meat parts helped the U.S. compete in the major Pacific markets. Average export unit values for parts were 46 cents per pound, compared with 57 cents for whole broilers.

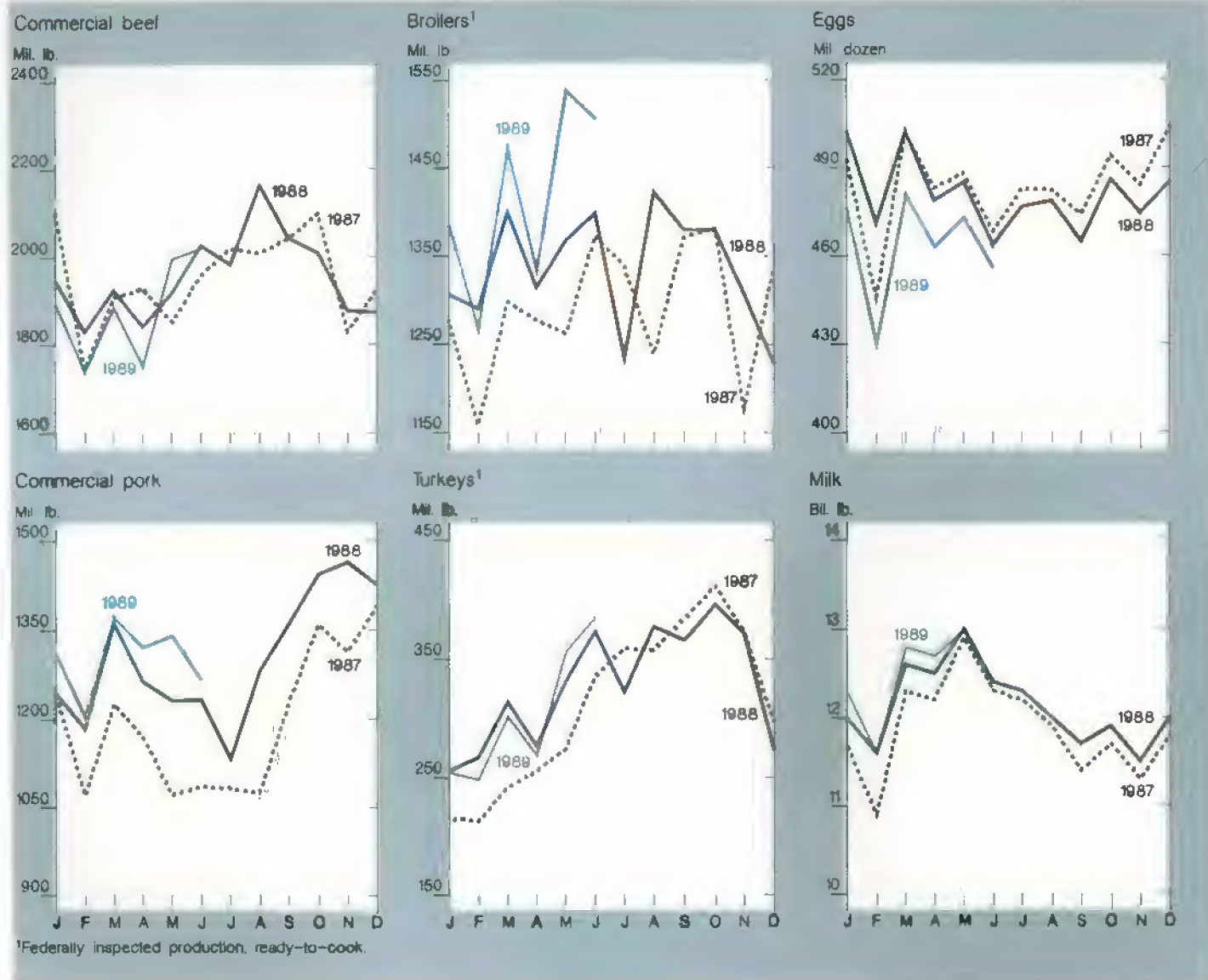
In July, 11 million pounds of broiler meat was sold to Iraq under the Export Enhancement Program (EEP), for export from August through October. The average bonus granted by USDA was about 28 cents per pound.

Turkey Prices Weaken

Eastern region hen turkey prices declined to 65 cents per pound in July, about 5 cents below last year, in the face of increasing production. Eastern region wholesale prices had reached record levels in June after climbing for 5 months.

Wholesale prices are expected to strengthen seasonally later in the year when retailers buy additional turkeys for holiday consumption. Prices will depend partly on how much turkey moves because of the July price break, when some groceries put turkey on special. Annual Eastern hen prices for 1989 are

Production of Livestock and Products



expected to average in the middle to upper 60's, above last year's 61.5 cents.

Turkey production for 1989 likely will exceed 1988 by 4 to 5 percent. Second-quarter federally inspected production was up about 3 percent. Monthly poult placements were up 12 percent in May, June, and July from a year before, as net returns continued to be favorable.

Despite the same production during first-half 1989 as a year earlier, turkey stocks rose to a relatively high 453 million pounds on June 30. Consumption dropped slightly in the second quarter compared with a year earlier, as retail prices rose.

Egg Production Turning Around

Total egg production in 1989 is expected to be down about 2 percent, rather than 3 percent as earlier estimated. The reason is that net returns to egg producers continue to be positive, and are likely to remain so for the rest of the year. Consequently, flock rebuilding is expected to bring about a larger-than-expected increase in table-egg production during the fourth quarter.

The total laying flock was about 1 percent below a year earlier at the beginning of July, reflecting a table-egg laying flock about 2 percent smaller, and a

hatching-egg flock 3 percent larger. Third-quarter egg production is expected to be 1 percent lower than in 1988, and fourth-quarter production will be about 1 percent higher.

Egg prices rose from around 76 cents per dozen in July into the mid-80's by August, compared with the high 60's a year earlier. An announcement of 500,000 cases to be shipped to Mexico may be influencing the price. Wholesale prices in New York for grade A large eggs are expected to average 80-82 cents in the third quarter, and 68-72 cents in the fourth.

Retail Dairy Prices Higher

Retail dairy prices will rise seasonally during the second half of 1989 and stay well above a year ago. For all of 1989, retail dairy prices are expected to be up 5 to 6 percent, the largest increase since 1981.

Retail dairy prices during the second quarter held fairly steady, showing very small seasonal declines. This was due to strong domestic demand for dairy products (except cream-based), strong foreign demand for nonfat dry milk, and some weakening in U.S. milk output.

Retail dairy prices this past spring continued to post the largest year-to-year rises in recent years. The Bureau of Labor Statistics' retail price index for all dairy products posted a 6-percent rise over a year earlier during April-June. Retail dairy product prices rose about as rapidly as all food prices, but faster than the overall Consumer Price Index.

During the second quarter, prices of fluid products rose about 7 percent from a year earlier, considerably more than the 5-percent increase for manufactured dairy products. This reverses the pattern of most recent years, when manufactured-product prices rose more rapidly.

In part, the higher fluid prices reflect the strength of recent farm milk prices. Dairy ingredients account for a larger share of fluid milk costs than of some manufactured products' cost.

For further information, contact:
Mark Weimar, coordinator; Fred White, cattle; Kevin Bost, hogs; Lee Christensen and Larry Witucki, broilers, turkeys, and eggs; Sara Short and Jim Miller, dairy. All are at (202) 786-1285.

Field Crops Overview

USDA forecasts that world ending stocks of wheat, coarse grains, rice, and cotton will tighten in 1989/90. Wheat and rice prices are likely to be up. World soybean production, however, likely will rise more than consumption, so ending stocks will increase.

U.S. grain and oilseed production for 1989/90 will increase markedly over last year. However, adverse weather has taken a toll again this year.

U.S. wheat and rice supplies are forecast to remain tight. Feed grain ending stocks could drop again as use outpaces production. Cotton stocks likely will return to lower, more manageable levels, given a reduced crop and rising exports.

U.S. Wheat Expected Tight; Competitor Production Up

Both spring and winter wheat have suffered weather problems. Total U.S. production is forecast to be slightly above 2 billion bushels. Although this would be up about 230 million bushels from last year, it would be about 65 million below the 1987/88 crop. Wheat supplies are expected to remain tight throughout the year, and exports will fall.

Year-end inventories likely will be drawn down by 220 million bushels. Consequently, prices are forecast at \$3.85 to \$4.25 a bushel for the 1989/90 season, higher than a year ago.

Winter wheat in Kansas and other Plains and Southwestern States was plagued by drought and strong winds, early frosts that increased winterkill, and damaging rainfall at harvest. Kansas' problems are so severe that North Dakota, whose wheat production often trails Kansas' output by more than 100 million bushels, may be the nation's largest wheat producer in 1989/90.

The spring wheat crop in North Dakota, however, has not been free of weather problems. Soil moisture deficits have remained high, while temperatures on occasion soared to over 100 degrees, stressing the crop when it was vulnerable. The North Dakota spring wheat crop (including durum) was estimated at

227 million bushels in August, down 21 percent from the month-earlier estimate, but still more than double the 1988 crop.

World wheat output is marked by the largest competitors' crop since 1986/87, pushing estimated 1989/90 world production to 527 million tons. Both Canada and the EC are bringing in larger harvests than last year, and strong plantings in Argentina support forecasts of an improved crop there. Australia's crop is expected to nearly equal last season's.

Despite higher output, rising world consumption, forecast at 537 million tons, will result in a continued drawdown of world stocks. Larger competitor supplies will limit U.S. exports to 35 million tons, 4 million below 1988/89.

U.S. Corn Outturn Pushes Global Production Upward

U.S. corn yields are projected to be 113 bushels per acre, well above 1988's 85 bushels, but still below the 1987 record. Because of the yield increase and a large gain in planted area this year, corn production is forecast to exceed 7.3 billion bushels in 1989/90, more than 2.4 billion over last year and an increase of about 50 percent.

As the corn crop entered its critical period this July, hot and dry conditions across major portions of the western Corn Belt were replaced by nearly ideal cool temperatures with normal to above-normal rain. In the eastern Corn Belt, saturated soils have dried somewhat. As of early August, 71 percent of the U.S. crop was rated good or excellent, the top two categories.

While domestic wheat prices are likely to increase in 1989/90, domestic corn prices are moving down. Substantial production gains and more plentiful beginning stocks indicate a season-average price of \$1.85 to \$2.30 a bushel, compared with \$2.50-\$2.60 in 1988/89 and \$1.94 in 1987/88.

Based largely on U.S. gains, world coarse grain production is forecast to rise 10 percent to 800 million tons in 1989/90. Foreign production will be about the same as a year earlier. The gap

between foreign consumption and production will grow slightly, and world stocks are expected to drop again.

Soviet purchases are likely to fall only slightly, keeping world trade near last year's 97 million tons. Larger competitor crops are expected to reduce U.S. exports to 59.3 million tons, down 3.5 million.

U.S. Soybeans Return to Normal; Global Outturn To Increase

Additional rains in the Midwest, along with some cooler weather, suggest that 1989/90 U.S. soybean yields are likely to be close to normal, ending earlier concerns of a repeat of last year's drought. As the crop neared pod-setting at the end of July and the beginning of August, almost two-thirds of acreage was rated good to excellent, compared with only about one-quarter last year.

The prospect of a crop over 1.9 billion bushels has moderated prices. Soybean prices have generally fallen from near \$8.00 a bushel to \$6.75 in July.

Soybean crush and exports have headed into their seasonal downturn in anticipation of the new crop. A large Brazilian crop, which has been slow to move to market, could push prices down further this fall. U.S. use of both soybean meal and soybean oil is expected to climb slightly next year. But oil and especially meal prices are likely to be lower.

Grower discontent with government policies has kept much of Brazil's output off the market. Thus, portions of the crop have been carried over for crushing and marketing in 1989/90. Along with this, expected higher production in the U.S. and Argentina will push 1989/90 world soybean production up 15 percent to 108 million tons.

World crush is projected to reach a record 88 million tons, up 7 million, while world trade is expected to gain 3 million tons as prices drop. But U.S. soybean and soymeal exports may be limited, first by strong competition from Brazil's 1988/89 carryover, and later by the expected larger Argentine crop.

World and U.S. Production and Use of Wheat, Corn, Soybeans

	1987/88	1988/89	1989/90
Million metric tons			
WORLD			
Wheat			
Production	502	501	527
Use	532	530	537
Exports*	106	98	99
Ending stocks	146	117	107
Corn			
Production	447	399	464
Use	462	461	471
Exports*	57	67	67
Ending stocks	147	85	78
Soybeans			
Production	103	94	108
Use	102	98	105
Exports*	30	23	26
Ending stocks	20	17	19
UNITED STATES			
Wheat			
Production	57	49	56
Use	30	27	28
Exports	43	38	35
Ending stocks	34	19	13
Corn			
Production	180	125	187
Use	152	134	140
Exports	45	53	51
Ending stocks	108	47	43
Soybeans			
Production	52	42	52
Use	34	31	33
Exports	22	14	16
Ending stocks	8	4	8

*Does not include intra-EC trade shipments.

U.S. Rice Crop Stressed; Trade Data Revised

Domestic rice production in 1989/90, at 151 million cwt, is expected to be down, reflecting both yield and area declines. With the exception of Missouri, planted area has decreased in all States; the largest declines were in Arkansas and Texas.

The declines likely reflected slightly lower prices prior to planting compared with a year earlier, lower target prices and loan rates, and the possibility of substituting soybeans for rice on rice program acres. The substitution was allowed by USDA this year for the first time.

This year's rice crop has been stressed by limited sunshine and above-normal precipitation, although the crop's ratings for 1989/90, with two-thirds rated good to excellent, are similar to 1988/89. Excessive rainfall in parts of Texas and Louisiana during the critical heading stage may limit yields in those areas.

Diseases pose a problem as well. Sheath blight, blast fungus, and other diseases that thrive in damp and humid conditions

are likely to further stress the crop. Exacerbating the problem, many fields, especially in Arkansas, have been planted with new rice varieties that appear to sacrifice hardiness in order to increase yields.

U.S. Commerce Department trade data in April and May significantly increased estimates of U.S. rice exports for 1988/89. Estimated U.S. exports are now placed at 2.8 million tons in 1988/89 and 2.5 million in 1989/90.

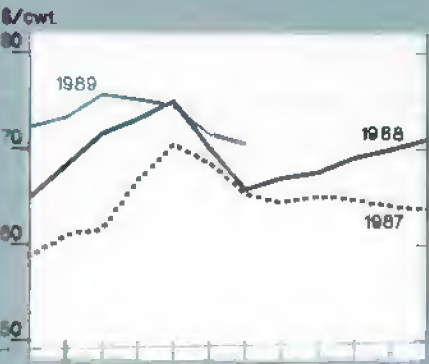
Forecasts of world rice trade were also increased to a record 14.1 million tons for calendar 1989, while trade in calendar 1990 is expected to drop to 13 million tons.

World Cotton Stocks-Use Ratio To Be Lowest Since WW II

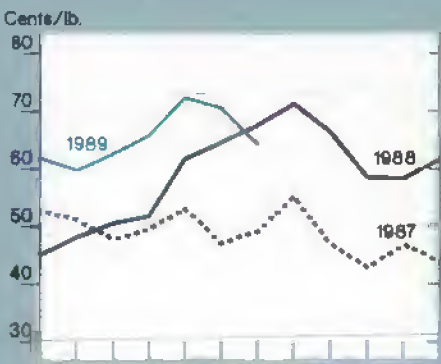
Reflecting plant development problems, far more of this year's U.S. cotton crop is rated only fair than a year earlier. Production is forecast at only 11.8 million bales, down almost 25 percent from last year. The drop also reflects USDA's higher acreage-reduction program requirement for cotton. Supplies remain adequate, however, mainly reflecting large carryin stocks of 7.5 million bales.

Commodity Market Prices

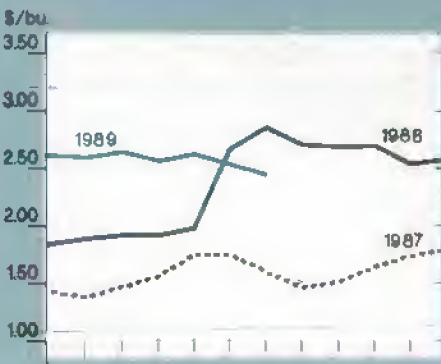
Choice steers, Omaha



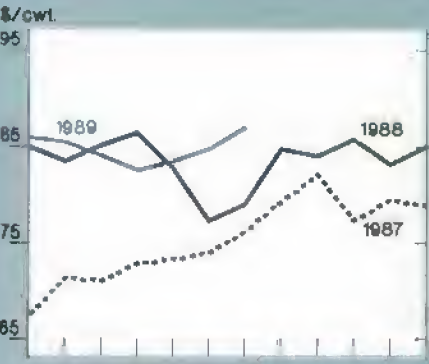
Broilers, 12-city average



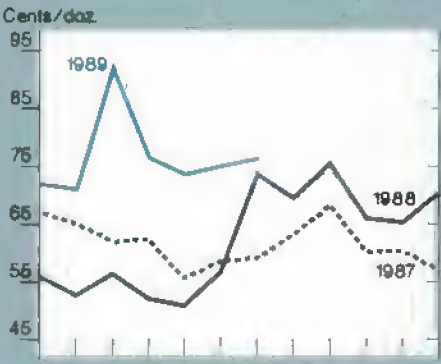
Corn, Chicago³



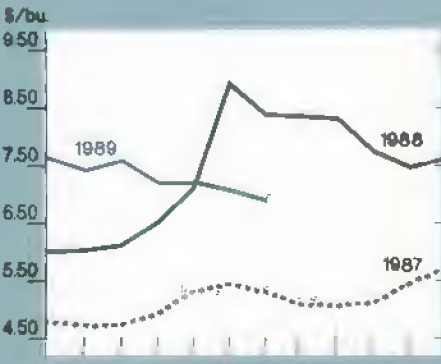
Feeder cattle, Kansas City¹



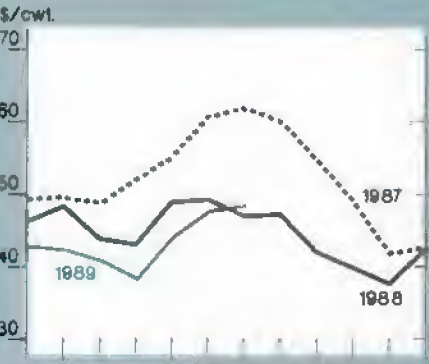
Eggs, New York²



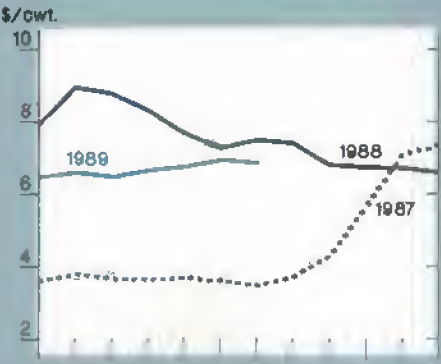
Soybeans, Chicago⁴



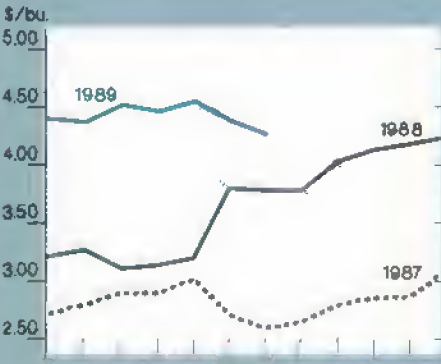
Barrows and gilts, 7 markets



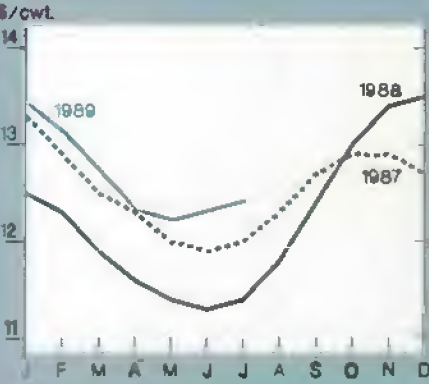
Rice (rough), SW Louisiana



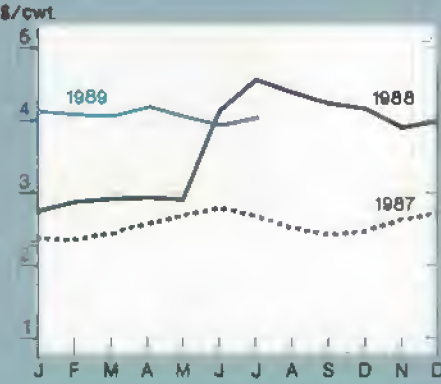
Wheat, Kansas City⁵



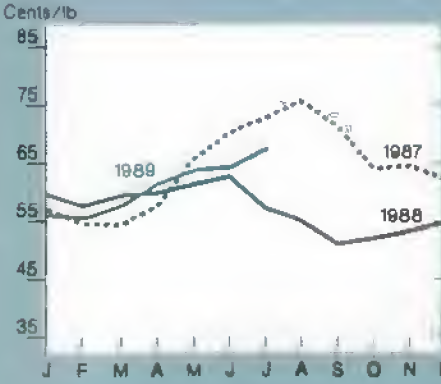
All milk



Sorghum, Kansas City



Cotton, average spot market



¹600-700 lbs., medium no. 2. ²Grade A large. ³No. 1 yellow. ⁴No. 2 yellow. ⁵No. 1 HRW.

Strong domestic mill use and foreign demand should combine with tightening foreign supplies to increase 1989/90 off-take. The U.S. will have an opportunity to sharply increase both exports (to a projected 7.8 million bales) and export share (from 25 percent in 1988 to 31 percent). Ending stocks are expected to plummet to 48 percent below beginning levels, to a more normal 3.9 million bales.

Smaller world production, rising consumption, more normal U.S. stocks, and tighter foreign stocks will cut world ending stocks significantly in 1989/90. World ending stocks relative to use, projected at 30.8 percent, are expected to be the lowest since World War II.

World cotton production in 1989/90 is forecast to drop 4 percent from 1988/89, as foreign production remains about the same and U.S. output falls. Consumption is expected to grow 2 percent, largely because of population and income gains among major producers.

Importers are likely to react to the rising prices by limiting import growth, which will keep world trade unchanged from 1988/89. Already tight supplies will restrict foreign exports; foreign stocks will again be drawn down. *[James Cole (202) 786-1840 and Carolyn Whitton (202) 786-1826]*

For further information, contact: Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Larry Van Meir, domestic feed grains; Bob Cummings, world oilseeds; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Bob Skinner, domestic cotton; Jim Schaub, domestic peanuts. World information (202) 786-1824; domestic (202) 786-1840.

Specialty Crops Overview

Smaller supplies of pears, peaches, and citrus fruit will keep upward pressure on the prices growers receive in the early fall. But prospects for a larger 1989/90 citrus crop and abundant supplies of fresh apples from Washington State likely will cause prices to drop by winter.

Manageable supplies and continuing growth in demand should make 1989/90 a good year for potato growers, although prices are expected to fall from recent highs. Declining world sugar production and rising consumption have set the stage for higher world sugar prices, which eventually could affect U.S. prices.

Fruit Prices Firm; Noncitrus Output Prospects Drop

USDA forecasts that the 1989 noncitrus crop—including the major tree fruits and grapes—will be 1 percent smaller than last year and 2 percent below 1987. Smaller crops of grapes, nectarines, peaches, pears, and plums will more than offset larger crops of apples, apricots, and cherries.

Despite reduced production prospects, fresh fruit prices this past summer averaged less than in 1988. The index of grower prices for all fruit was 19 percent lower in July than a year earlier. Lower apple, strawberry, and orange prices contributed importantly to the aggregate.

Apple prices, especially for Washington State red delicious, declined this past spring and summer, owing to heightened safety concerns about residues of the growth regulator Alar in apples, and the discovery of two cyanide-tainted grapes among imports from Chile.

In mid-July, Washington State red delicious sold for only \$8 to \$10 per carton, f.o.b. Yakima, far below the \$20-\$25 of a year earlier. The U.S. average grower price for all apple sales was 10 cents per pound this July, compared with nearly 16 cents in July 1988.

Retail prices for red delicious apples dropped 5 cents per pound between February and June. The June Consumer Price Index for all fresh apples, however, remained essentially unchanged from February.

USDA allocated \$15 million to remove 1988-crop apples from normal marketing channels to help clear stocks before the 1989 season. After soliciting bids, USDA awarded \$9.5 million in compensation to growers for giving away 57.6 million pounds of apples. The apples are going to 56 non-traditional outlets, including ethanol distillers and livestock feeders in Connecticut, New York, Maine, Pennsylvania, and Washington State.

Grower prices in July were higher than a year before for peaches, pears, and lemons. Prices likely will remain higher through early fall, in view of smaller pear and peach crops and reduced citrus supplies. Prospects for a larger 1989/90 citrus crop and abundant supplies of fresh apples in Washington State likely will put downward pressure on prices by winter.

Potato Prices Likely To Remain Firm in 1989/90

Although potato prices will back off from the highs registered during the spring and summer, growers' 1989/90 prices will remain firm from a historical perspective. Even with 1989 yields recovering from last year's drought, total production probably will be less than 375 million cwt. The 1988 growers' average price likely exceeded the preliminary estimate of \$5.49 per cwt on total production of 350 million cwt.

Demand will continue to expand because of population increases and growth in frozen potato exports. In addition, early July stocks of frozen potatoes this season were 4 percent lower than in 1988, further heightening demand for 1989 potatoes. The average grower price for 1989 could range from \$4.75 to \$5.25 per cwt.

Dry edible bean producers can expect lower prices compared with last year. Production prospects as of early August were 24.9 million cwt, up 29 percent from last year's drought-afflicted crop. Prices will plunge from the \$29.70 per cwt estimated for 1988. A useful comparison is the 25.9-million-cwt crop harvested in 1987, which returned growers an average of only \$16.50 per cwt.

Production is forecast higher by 78 percent in Michigan and 49 percent in North Dakota. Michigan grows mostly navy beans, while North Dakota is an important producer of both navy and pintos.

World Sugar Stocks Declining, Prices Rising

Despite continued growth in world sugar production, faster growing consumption is chipping away at stocks and setting the stage for higher prices. Global consumption likely exceeded production for 1988/89, the fourth straight year that use has surpassed output.

As a result, global stocks could fall to near 20 million metric tons, raw value, by the end of the 1988/89 marketing year. That's compared with 28.6 million at the end of 1984/85. Forecasts for 1989/90 indicate that consumption will again exceed production.

World sugar production is forecast at 107.3 million metric tons in 1989/90, 1.4 million less than consumption. Although consumption is forecast up 1 percent, growth will fall below the long-term trend. Global sugar use is estimated up for the eighth consecutive year in 1988/89, but higher prices have slowed the increases.

The world raw sugar price crept up from 6.05 cents per pound in calendar 1986 to 10.18 cents in 1988. Monthly average prices reached 14.04 cents in July 1988, backed off to about 10 cents, then moved up again to the 14-cent range this July. World prices below 20 cents per pound normally do not affect U.S. prices because of the minimum guaranteed by USDA's sugar program. However, price spikes occurred in 1974 and 1980 when world stocks became scarce.

U.S. sugar prices have been strong during the first 3 quarters of 1988/89 because of a smaller domestic beet sugar harvest in 1988 and slowness on the part of quota-holding countries in shipping sugar during first-half 1989. Raw sugar prices averaged 23.0 cents a pound in June (nearby futures, c.i.f. duty-paid, New York), and exceeded 23.6 cents in mid-July. The 3-quarter average is 22.18 cents, compared with a market stabilization price of 21.80 cents.

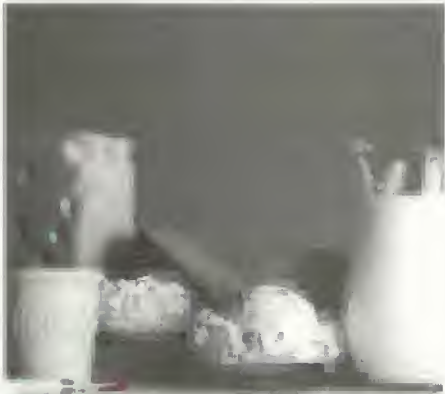
Some quota sugar shipments from Asia are being diverted from the Northeast market to California, where diseases reduced 1988/89 beet sugar production. Most of the 1989/90 output will not begin to be available until mid-September at the earliest. Third-quarter refined sugar prices were about 32 cents per pound in California.

USDA removed import controls in May from the quarterly and semi-annual limits to help speed up shipments. Despite this action, imports probably will run behind schedule during the third quarter. Brazil's plan to privatize exports and an embargo on sugar from Panama have slowed shipments.

Unless substantially more sugar enters the country, U.S. raw sugar prices likely will not soften until domestic beet and cane sugar supplies reach the market in October. Midwest refined beet sugar is being sold for 29 to 29.5 cents per pound for third-quarter delivery. Midwest wholesale prices likely will ease by 2 cents or more later this year when new-crop sugar becomes available.

USDA forecasts 1989/90 U.S. sugarcane production at 30.8 million tons, up 3 percent from last season, and sugarbeet production at 26.6 million tons, up 7 percent. Area for harvest is greater in Florida and Louisiana. Louisiana reports excellent conditions and stands a good chance of harvesting a record crop this fall. Hawaii's production may fall short of 1988 because excess rainfall delayed harvesting this spring. [Glenn Zepp (202) 786-1883]

For further information, contact: Kate Buckley, fruit; Shannon Hamm, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco; Doyle Johnson, tree nuts and greenhouse/nursery; David Harvey, aquaculture. All are at (202) 786-1883.



Commodity Spotlights

Problems in Aggregating Dairy Products

The dairy industry has always faced the question of how to add up dairy products. But, the support-price adjustment mechanism contained in the 1985 Food Security Act took a minor technical quandary and thrust it into the spotlight. Changes in the support price for milk came to depend on calculations of milk surplus volume, whereas during 1981-85, support prices were actually fixed in legislation.

Milk comes from the cow as a straightforward mix of water, fat, proteins, lactose (milk sugar), and minerals. The proportions of different components vary within well-defined limits. This uniformity disappears as milk is separated, concentrated, cultured, heated, frozen, churned, or dried into myriad dairy products. The proportions of milk components in the various final products vary wildly.

Manufactured dairy products are the forms most often stored, traded among regions or countries, or bought by the Government. Without some means of translating conditions in individual product markets into supply-demand and price conditions for milk, accurate analysis of the dairy industry is not possible.

The needed calculations are not a simple matter of dividing individual product totals by the appropriate yield, because most uses of milk produce more than one product. For example, 100 pounds of milk can produce not just 10 pounds of cheddar cheese, but also 2 pounds of whey protein concentrate, 4 pounds of lactose, a third of a pound of whey cream butter, and a bit of dry buttermilk product. Naively dividing all these products by their yields would imply 500 pounds milk equivalent—all from a mere 100 pounds of raw milk.

Common Basis Necessary for Aggregating

A common basis for adding dairy products is needed; one component or cluster of components must be selected. Products can be aggregated as pounds of the common component or as milk equivalent. Milk equivalent measures the amount of raw milk needed to provide the amount of the common component found in the product. In the past, milkfat (or milkfat basis milk equivalent) most commonly has been used.

In contrast, nutritionists have used a calcium basis, while others have used bases of solids-not-fat, protein, casein, or total solids.

The ideal candidate for a common factor should be: (1) uniform, (2) subject to only minimal (or unavoidable) waste, and (3) measured and recorded at all important levels.

Lack of uniformity is a major problem with using solids-not-fat. Casein (worth \$2.40 per pound) is treated the same as nonfat dry milk (worth 90 cents per pound) or dry whey (worth 13 cents per pound). Unless unusual caution is used, the system can easily imply that inexpensive whey solids can be magically transformed into cheese or nonfat dry milk.

Other accounting problems occur when large quantities of a milk component are not used in any product. Less than half of whey solids-not-fat are recovered as whey products. In calculations based on solids-not-fat, changes in the amount of whey solids recovered can easily overwhelm much more important changes in milk production or use of major products.

Similarly, accuracy of the accounting system suffers when the component is not universally measured and recorded.

Currently, milkfat is the only component able to meet the criteria for uniformity, recovery, and accountability. The industry has traditionally used milkfat, and it does a good job of reflecting conditions for products based on cream or whole milk—but not conditions for skim milk products.

No single component reflects as clearly the skim milk side of dairy markets, although casein is a contender. One current stumbling block in skim milk computations is that many milk handlers do not test for skim solids, and plants that habitually test do not use comparable measures.

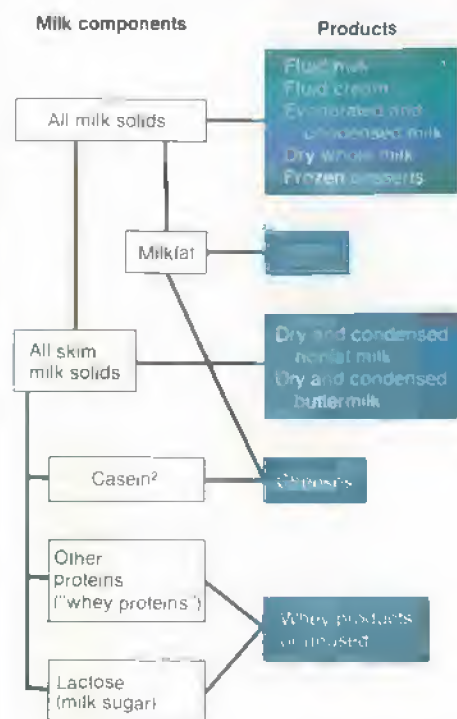
Trigger Makes Aggregation An Issue

Until the 1985 farm bill, only a few specialists ever worried about how to add up dairy products, because differences due to measurement procedures were only occasionally important. The price support program adjusted relative prices of butter and nonfat dry milk to equalize the surplus of cream and the surplus of skim milk. Calculations of the surplus did not directly affect support prices, which were specified by law in 1981-85. Also, as long as the two sides—cream and skim milk—had the same surplus, the method of measurement was almost irrelevant.

But, the trigger provisions of the 1985 law and the emergence of large commercial exports of nonfat dry milk have transformed an esoteric problem into a policy issue. The Food Security Act of 1985 specified that the support price for milk during 1988, 1989, or 1990 must be lowered by 50 cents per cwt if expected net Government purchases "will exceed 5 billion pounds (milk equivalent)" for that calendar year. Similarly, the support price is to be raised 50 cents per cwt if net removals are projected at 2.5 billion pounds or less.

While the language of the bill was not specific, these provisions have been interpreted as meaning milk equivalent, milkfat basis, because that is the traditionally

Milk Gives Myriad Products



*These products use all milk components but not necessarily in the proportions found in milk

*Principal protein of milk.

accepted measure and was used in estimates of surpluses during debate over the legislation. During 1980-87, milkfat-based measures favored dairy farmers much more than calculations based on solids-not-fat would have, because the surplus of skim milk was considerably larger than the cream surplus.

International Market Shifted Relative Surpluses

Relative surpluses were drastically altered in mid-1988 when international nonfat dry milk prices rose above the domestic support price. Commercial export markets have absorbed all of the skim milk that is excess to domestic use. In 1989, the Government will purchase 7-8 percent of the milkfat produced—but less than 0.5 percent of the skim solids. Although imbalances were common in the past, none of them was as pronounced as the current imbalance.

Probably no single measure could adequately capture current conditions in dairy markets. In the longer term, the obvious correction is to adjust butter and nonfat dry milk support purchase prices to reflect market conditions. Such

changes in relative prices have been a part of support-program policy since the early 1970's; they were a dramatic part of the April 1 and July 1, 1989, price changes.

Under today's volatile conditions, understanding the aggregation problem is critical to understanding dairy production, prices, use, and trade. In coming months, the Government, the dairy industry, and others are likely to devote considerable effort to the question of how to add up dairy products to reflect current conditions more accurately. [Jim Miller (202) 786-1770]

Oat Imports into U.S. Likely To Stay Strong

Oat imports into the U.S. hit 1 million tons in 1988/89 (June/May), soaring 50 percent from 1987/88. The total was the largest since the early 1950's. U.S. imports comprised 60 percent of all world trade in oats. While purchases may fall off somewhat in coming months, the U.S. will remain the dominant buyer in the world market.

The U.S. has been the world's largest importer since 1983/84, when the import boom began. From the mid-1950's the U.S. had generally been a net exporter, but by the early 1980's exports had trailed off (see *Agricultural Outlook*, December 1987).

As the U.S. has developed into a consistent importer, leading exporters have tried to target production for the U.S. market. In recent years, imports have increasingly been destined for human consumption as well as for feed for horses. This reflects sharply higher consumer demand for oats and oat products, coupled with short domestic supplies of high-quality milling oats.

Phenomenal Growth in U.S. Food Use

Although more oats are still used for feed than for food, human consumption of oats and oats products has risen spectacularly in the last 2 to 3 years. Research has linked the fiber content of oats with lower serum cholesterol levels, and health concerns have buoyed the demand for oat food products.

Up to the mid-1980's, food use of oats was quite stable. It started to climb in 1985. In the last 2 years, new products and uses for oats and oat bran have proliferated.

For 1988/89, USDA estimated that food use jumped over 40 percent. Although the increase is expected to slow in 1989/90, growth will continue as additional milling capacity comes on line.

Meanwhile, total use of oats has fallen because of decreased feeding. For the last 3 years oat prices have been high relative to corn, given their feed energy values. This has limited off-farm feeding to more specialized uses, such as for race horses, where demand is less price sensitive; fewer oats were fed to other classes of livestock. Until prices are more in line with feeding values, oats fed off farm will remain largely a specialty feed.

U.S. Production Decline Started in 1940's

The first surge in U.S. imports followed a short, poor-quality crop in 1983. Despite some better crops since then, imports have not receded. The recent rise in demand for food-quality oats has coincided with further domestic supply problems. After a mediocre 1987 crop, drought reduced 1988 production 42 percent to 3.2 million tons and also harmed quality. This was the smallest crop since records were first kept in 1866.

U.S. oats area and production have been trending downward since the 1940's. This partly reflects a long-term decline in on-farm feed requirements as mechanization cut the number of horses and mules on farms. But yield gains for oats have trailed increases for other feed grains over this period, explaining much of the production decline.

In the last few years, Government programs have been criticized for holding down net returns for oats relative to other crops, such as barley and corn. However, the higher market prices of 1987/88, coupled with no cross-compliance and a reduced Acreage Reduction Program for oats, brought only a limited response from farmers.

In addition, significant amounts of land designated as oats base have entered the Conservation Reserve Program. Although oats are widely grown as a cover crop on idled acreage, these plantings are not harvested for grain.

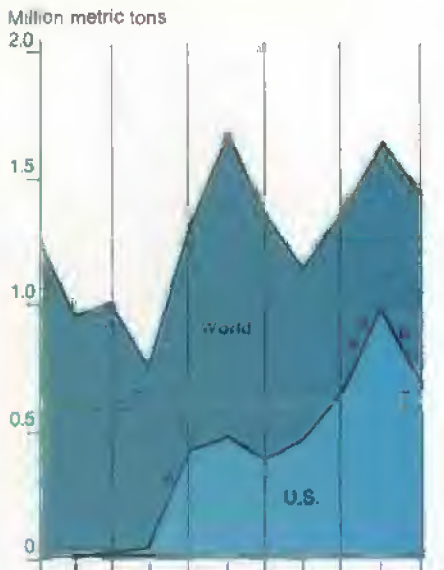
The quality of an oats harvest is as important as the quantity. Top-quality oats are characterized by such features as high test weights, light color, plump kernels, and purity. Hot weather at critical times in the growing season frequently reduces plumpness and test weights.

The import market generally aims for high-quality oats for milling and premium feed. But the quality of imports is not always consistent. The oats market seems to be evolving into two tiers—for higher and lower quality—similar to the barley market, which features higher prices for malting barley than for feed barley.

Canada and Sweden Are Largest Exporters

Since the start of the U.S. import boom, Canada and Sweden have accounted for nearly 80 percent of U.S. purchases, followed by Finland with about 14 percent. In 1988/89, Canada was the biggest U.S. supplier, sending a record 654,000 tons. The 1988 Canadian crop largely escaped the drought that devastated oats in the U.S. and other grains in Canada.

U.S. Dominates World Oats Imports



Based on local marketing years.
1988/89 preliminary. 1989/90 forecast

Sweden was the next largest supplier in 1988/89, at 278,000 tons. Oats from Argentina and an unusual purchase from Poland made up most of the remaining supply. Imports from Finland fell in 1988/89 to negligible levels because poor weather reduced the Finns' output for a second consecutive year.

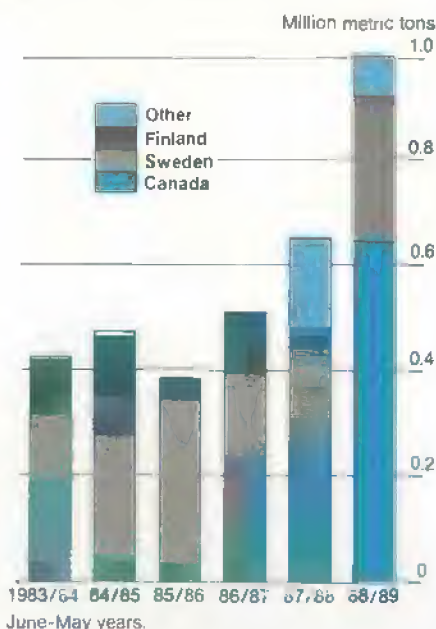
Imports from Argentina might have been higher in 1988/89, but drought cut production. In 1987/88, high U.S. prices attracted large shipments of oats from Argentina, despite some reported quality problems. Only a small proportion of Argentina's planted oats had been harvested for grain in previous years, and most oats were used for fodder. But the U.S. market opportunity stimulated additional harvesting and exports.

Exporters Target U.S. Market

The world oats market has been characterized by thin but highly variable volume over the last 30 years. The amount of oats moving into commercial channels in all producing countries is quite low. Most oats are used for on-farm feeding and generally are priced lower than other grains.

Furthermore, oats are light but bulky, and so relatively expensive to transport. These factors, combined with considerable weather-related swings in production and quality, have made exports largely a residual outlet, until recently.

U.S. Oats Imports Climbing



Most importers, with the exception of a few countries like Switzerland and Japan, have tended to import sporadically. However, the U.S. buying spree of the last few years has lent more stability to the world market. Major exporters have responded to this opportunity.

Canada removed oats from the jurisdiction of the Canadian Wheat Board this year. This could lead to more aggressive sales by private traders who have targeted the U.S. market. Some Canadian firms have offered farmers production contracts this year for premium-quality oats, presumably for the U.S. market.

Farmers in both Sweden and Finland continue to look to the U.S. as their prime market for oats, despite efforts initiated by policymakers in the two countries to contain exportable surpluses of feed grains. Efforts to reduce production in line with domestic needs have been largely unsuccessful in the face of strong farm lobbies in both nations.

For example, voluntary fallow programs tried in both have not proven very effective. According to reports from USDA's agricultural attache, Swedish export subsidies for oats were estimated 24 percent higher per ton in 1988/89 than the year before.

For 1989, the Swedish Grain Trade Association has initiated a contract production program with strict quality requirements for export to the U.S. Finland has placed a ceiling on exports of agricultural commodities, over which the government will not provide export financing. However, poor weather cut production in 1988, reducing export costs. For 1989, Finland has actually raised price supports for oats.

Outlook Is for Reduced U.S. Imports in 1989/90

The U.S. is expected to reduce oats imports in 1989/90 because of a rebound in domestic production. The U.S. crop is forecast to rise 74 percent to 5.5 million tons. This likely will mean season-average farm prices 25 to 40 percent below last year. Imports are projected to drop 25 percent to 726,000 tons. At this level, U.S. imports would still account for about half the volume of world trade forecast for 1989/90.

No significant increases in imports by other countries are forecast in 1989/90. While interest in the health qualities of oats may be growing in other countries, this has not yet translated into significantly higher import demand for food-quality oats. Most trade outside the U.S. will continue to hinge on feed requirements, and will be sensitive to relative prices of other feed grains.

Export supplies in 1989/90 are expected to be adequate to meet U.S. demand. Even if market prices drop significantly, major foreign suppliers are likely to continue producing for the U.S. Also, some U.S. importers may be contracting imports in advance.

Considerable uncertainty about current forecasts remains, because the quality of the upcoming harvests is not fully known. Even if U.S. output meets predicted levels, the proportion of higher quality oats is not assured. A shortage of high-quality oats suitable for milling could still push imports higher than currently expected. [Pete Riley (202) 786-1825]

Upcoming Releases from the Agricultural Statistics Board

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the October *Agricultural Outlook* comes off press.

September

- 1 Egg Products
- Walnut Production (Tent.)
- 6 Poultry Slaughter
- Dairy Products
- 7 Celery
- 8 Vegetables
- 12 Crop Production
- 13 Turkey Hatchery
- 15 Milk Production
- 18 Cattle on Feed
- 20 Hop Stocks
- Catfish
- 22 Livestock Slaughter
- Cold Storage
- 25 Citrus Fruits
- 26 Eggs, Chickens, and Turkeys
- 27 Potatoes
- 28 Peanut Stocks and Processing
- Grain Stocks
- 29 Agricultural Prices
- Hogs and Pigs
- Trout Production



World Agriculture and Trade

Higher Prices Strain Food Aid Budgets

The face of famine has been familiar during much of the 1980's, and the need for food assistance has been great. Much of this need has been driven by crop failures and acts of nature, as well as by civil wars and other political chaos.

Sub-Saharan Africa has provided the most dramatic examples. As the 1980's come to a close, however, food production has recovered in many of the countries requiring food aid.

Starvation continues to be widely evident in countries such as Sudan and Somalia, where civil conflict is displacing communities and disrupting food production and distribution.

Despite production gains, global food aid needs remain high. Estimated 1989/90 cereal needs of 15.4 million tons are down from the 17.1 million tons in 1988/89 and the record 19.5 million tons in 1987/88. Even so, estimated 1989/90 cereal needs are about 2 million tons greater than at the height of the African famine in 1984/85.

In general, reduced exports are limiting the ability of developing countries to pay for food imports; at the same time, world

food grain prices are rising. Prices, particularly for wheat and rice, are up in 1988/89 and 1989/90 because poor crops in key countries and continued large demand have led to a sharp decline in world stocks.

Debt, Changing Prices Boost Food Aid Needs

Short-term food aid needs are most commonly caused by domestic crop failures, or failures in major importing or exporting countries that result in higher world prices. Food aid needs may also arise when the capacity to pay for imports falls, as when prices received for exports fall or prices paid for critical imports (such as petroleum) rise abruptly.

Various other economic factors—high debt service payments, a drop in remittances from workers abroad, and capital flight—can leave countries short of the foreign exchange needed for food imports.

The case of Guinea illustrates the impact of higher prices. USDA estimates that Guinea's total cereal import requirements in 1989/90 are up only slightly from those of 2 years earlier, and that the capacity to pay for commercial imports remains unchanged. But because of the sharp rise in world wheat and rice prices between 1987/88 and 1989/90, estimated food aid needs more than doubled to 102,000 tons of cereals.

Falling Stocks Raise Prices

Cereals prices have risen over the last 2 years as global stocks have fallen. Vegetable oil prices also are higher; smaller North American crops are the largest factor. In the case of wheat, the major food aid cereal, world production in 1988/89 was 30 million tons less than consumption, bringing world stocks to their lowest since 1981.

Drought cut 1988/89 U.S. production of wheat 14 percent and devastated Canada's crop, which fell 40 percent. Drought also contributed to the smallest Argentine crop since 1980. With production down in all exporters except Australia and the EC, exporter stocks fell sharply, and the ratio of ending stocks to use reached the lowest in the last 30 years.

Tightening supplies drove up wheat prices; the average U.S. Gulf export price increased almost 40 percent from 1987/88 to 1988/89, to \$165 per ton. Many buyers faced even larger increases, since the average U.S. Export Enhancement Program bonus was down by about one-half from 1987/88.

World rice stocks are also low. In contrast, coarse grain stocks, while down sharply, are not substantially below historical averages. But compared to wheat, fewer tons of both rice and coarse grains are shipped as food aid.

Low exporter stocks dominate the world wheat market in 1989/90. Better weather and larger area will mean a record foreign exporter crop. In the U.S., however, dry weather damaged the winter wheat crop, and total wheat production is expected to increase only 13 percent, despite a 17-percent rise in planted area. The combined increase in total exporter wheat production is nearly balanced by lower beginning stocks, so total exporter supplies show little change from last year.

Although this year's wheat crop is up, world consumption will still exceed production, and ending stocks are projected to drop again. Projections call for prices to rise modestly from the relatively high 1988/89 average.

The low prices of 1986/87 and 1987/88 were the temporary result of large stocks and aggressive export competition, including large subsidies by the EC and the U.S. During the peak of this competition, export subsidies brought wheat prices on some sales below \$70 per ton, the lowest since the early 1970's. These prices were not sustained.

Food Aid Shipments Down by 25 Percent

Tight exporter grain supplies are accompanied by tight budgets for food assistance in 1988/89. Financial pressures facing donor nations are working against larger food assistance funding, particularly when needs are less visible and dramatic.

The Food and Agriculture Organization (FAO) estimates that world cereal aid shipments in the July 1988-June 1989 trade year fell below 9.8 million tons, the

smallest since 1983/84. This was more than a 25-percent decline from 1987/88, and the sharpest year-to-year drop since 1973/74. However, aid shipments were still well above the early 1980's.

According to the estimates, 1988/89 was the first time in 4 years that cereal aid shipments fell below the 1974 World Food Conference target of 10 million tons. Given continuing tight world supplies, cereal aid shipments likely will decline again in 1989/90.

Cereals (mostly wheat) compose the overwhelming volume of world food aid. Major donors are the U.S., estimated to provide 56 percent of world cereal aid in 1988/89, the EC with 20 percent, Canada with 10 percent, Japan with 4 percent, and Australia with 3 percent. The U.S. share would be the lowest since 1974/75.

With stocks dropping sharply, the U.S. Food Security Wheat Reserve has been tapped for the first time since the African famine of 1984/85 to help meet overseas food aid needs in fiscal 1989. President Reagan authorized 1.5 million tons of the 4-million-ton reserve to be provided under P.L. 480, and all of the authorized amount is expected to be used.

Rapid Improvement Unlikely

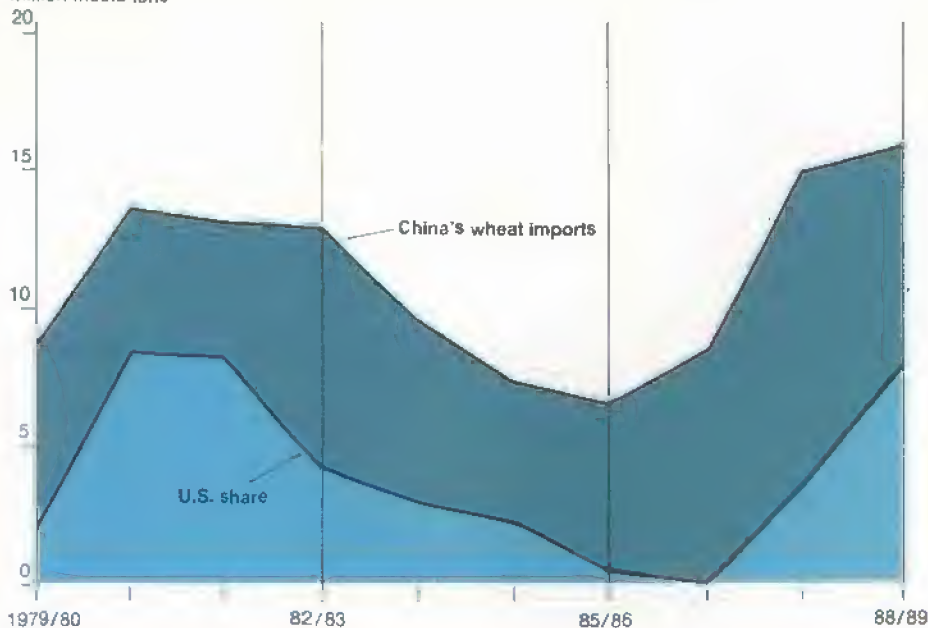
Some improvement in stocks and moderating of wheat prices may be on the horizon. With average weather, stocks should begin to recover in 1990/91. U.S. planted area likely will increase, because program participants must idle only 5 percent of their wheat base next season, compared with 10 percent this year and 27.5 percent last year. Trend yields also would be well above this year, leading to a substantial increase in the U.S. crop.

Two years of stronger prices could boost foreign exporter plantings and production. These gains should mean that exporters will begin rebuilding stocks, that prices will weaken, and that food aid budgets will permit a somewhat larger volume of shipments. But world demand continues to grow, and the process of stock rebuilding will be gradual.

In the near term, the world will have only a small cushion against a major production shock that could send prices up sharply. [Ray Nightingale (202) 786-1680, Frederic Surls (202) 786-1824, and Mark Smith (202) 786-1822]

China's Wheat Imports—and U.S. Share of Them—Are Rising

Million metric tons



China's Unrest Will Cut Farm Trade

Reflecting the recent political unrest, some of China's agricultural imports probably will dwindle, and total agricultural trade may shrink. Official statistics released by China's Customs Administration show that for the first 6 months of 1989, imports of raw sugar and agricultural inputs were markedly down from a year earlier. And they are expected to stay down for the second half of the year. Yet wheat imports should stay high, and cotton imports may drop only slightly.

China's government recently said that the total economic loss due to the recent turmoil is nearly \$1 billion, and that about a third of the loss was incurred in Beijing. Moreover, the figure may markedly underestimate the secondary effects of the losses.

For example, tourism—which contributed \$2.2 billion in foreign exchange earnings in 1988—likely suffered a direct loss of more than \$500 million during May-July. Indirectly, earnings of taxi drivers, hotel workers' annual bonuses, and tourist guides' incomes will all shrink. Unless there is a turnaround, repayment on the loans made to build hotels and other joint ventures may slow or even stop.

These problems, together with slowing foreign investment and decreasing foreign orders for manufacturing and textile products, will cut China's foreign exchange earnings and thus reduce the country's hard currency available to pay for imports.

Sanctions To Cut Economic Growth

Economic sanctions implemented by the Western countries after the incidents in Tiananmen Square, coupled with foreign investors' concerns about stability, may slow China's rural development. Loans for rural infrastructure or crop production improvements will be delayed. Credit shortages could result if the delays are prolonged.

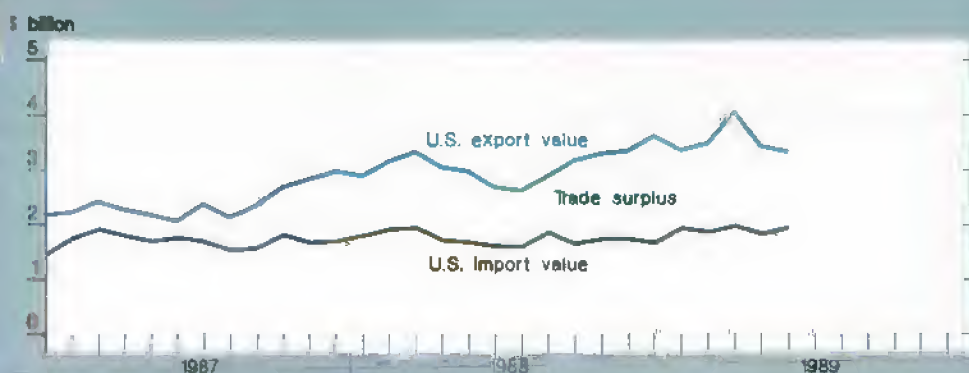
Investments to improve transportation systems and to support agricultural marketing efforts in rural areas are being put off. Technology transfers to enhance rural production and commodity processing may also be delayed.

China's Economic Problems Are Long Term

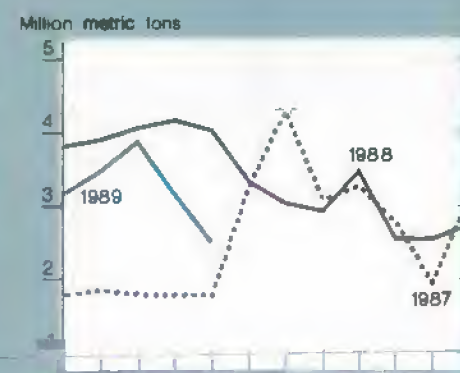
Even before the recent turmoil, China's agricultural economy featured stagnating grain production, an expanding trade deficit, and a shortage of cash for the government to purchase agricultural output for urban residents.

U.S. Agricultural Trade Indicators

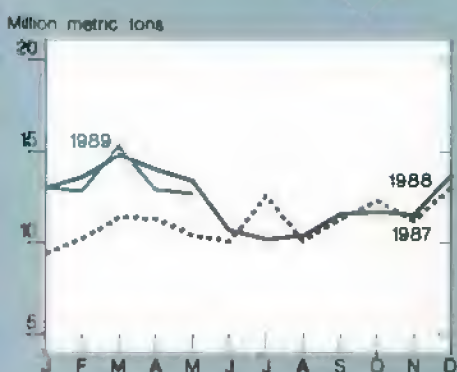
U.S. agricultural trade balance



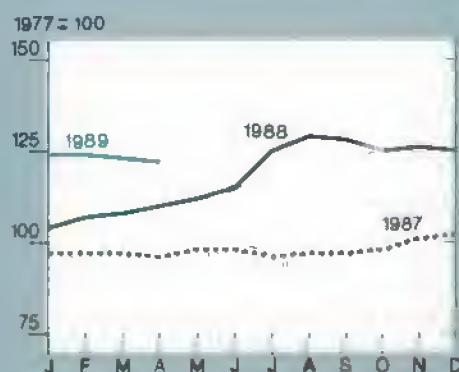
U.S. wheat exports



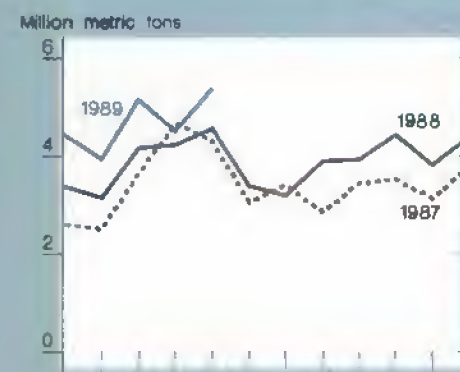
Export volume



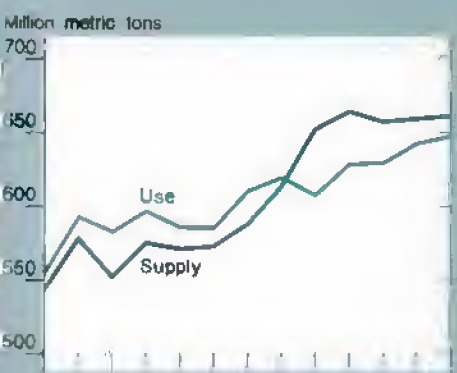
Index of export prices



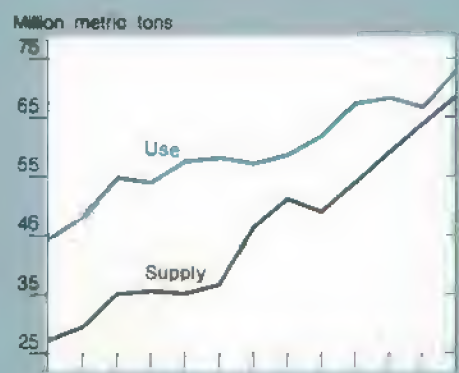
U.S. corn exports



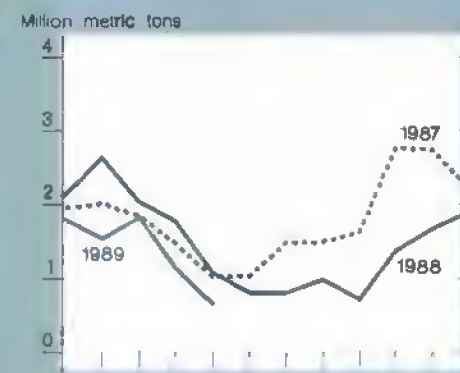
Foreign supply & use of coarse grains



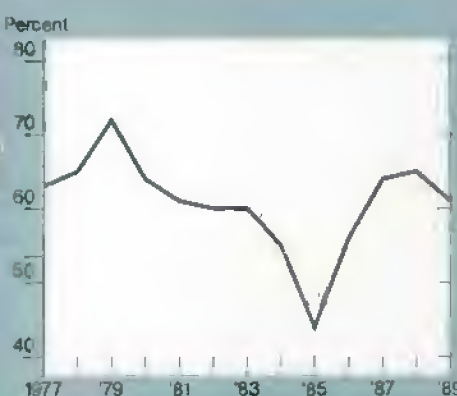
Foreign supply & use of soybeans



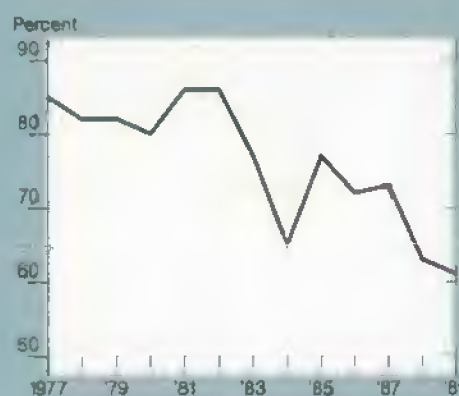
U.S. soybean exports



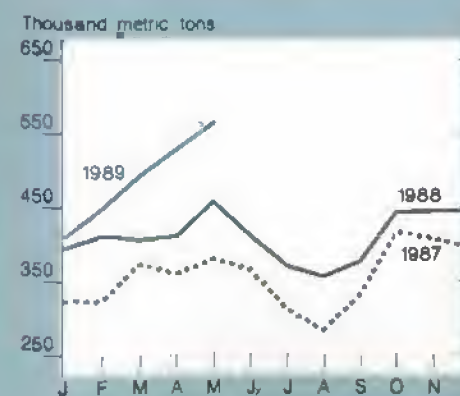
U.S. share of world coarse grains exports¹²



U.S. share of world soybean exports¹²



U.S. fruit & vegetable exports³



Excluding intra-EC trade ²October-September years

³Includes fruit juices.

Grain production in China has leveled off, after peaking in 1984. Total trade has continued to grow, but the trade deficit began expanding again in 1988 after falling to about \$4 billion. In 1988, the deficit swelled to approximately \$8 billion, almost double the previous year.

China's economy has overheated in recent years, with industrial growth far exceeding that of agriculture. Inflation has worsened since mid-1988. China's State Statistical Bureau reported an inflation rate of more than 25 percent for the first 6 months of this year.

Domestic Policies Boost Pressure To Import

Austerity programs were imposed in late 1988 to curtail overall inflation, and soon after that there was a shortage of government cash to procure crops. Reportedly, farmers were discouraged because more than half of last year's fall crop purchases were made with government IOU's.

Farmers' incentives have been further damaged this year by the early use of IOU's to procure summer harvests. The government's summer-crop procurement likely encountered some difficulties, resulting in short food supplies and stricter rationing for urban residents.

Population and income growth in urban areas have pushed up the demand for wheat. This demand, accompanied by expected difficulties in procuring grains, should keep wheat imports high this year. The increase in domestic wheat output this year, roughly 3 or 4 million tons, is not enough to meet the greater domestic demand. Moreover, substantial wheat imports could help urban social stability.

Cotton area is down slightly this year, but total consumption is still growing. The 1989 planted area likely will not provide enough cotton. To maintain textile product exports, China cannot afford to cut cotton imports significantly, even with the tight foreign exchange situation. Textile products have accounted for about a quarter of China's total export income in the last couple of years.
[Francis C. Tuan (202) 786-1626]

Amid Turmoil, Brazil's Agricultural Growth To Slow

For the last 2 years, economic conditions have deteriorated rapidly in Brazil, Latin America's largest debtor and largest agricultural producer. The international debt crisis continues to depress economic growth and development in Latin America.

Among other factors, the Brazilian Government's austerity measures have cut subsidies to agriculture. Should current policy trends continue, growth in Brazil's agricultural output may slow.

Rapid Inflation, Capital Flight Cut Growth

Annual inflation in Brazil grew from 148 percent in 1986 to 934 percent in 1988. Last year's rate was exceeded within Latin America only by Peru and Nicaragua. Brazilian inflation this year could pass 1,000 percent as the government's newest economic reform plan, enacted last January, collapses. Without lasting success, the administration of President Jose Sarney has introduced four economic reforms in as many years, including two currency reforms.

The government's repeated failure to get the economy on a steady footing has eroded investors' confidence, increasing simultaneously the severity of the crisis and the likelihood that future stabilization measures will fail.

Capital flight is expected to reach \$12 billion this year, according to Brazil's Central Bank. And on the black market, the novo cruzado/dollar exchange rate is about three times the official rate. Hyperinflation, currency overvaluation, capital flight, and high interest rates have stifled investment. As a result, only slight economic growth, if any, is expected. The return of economic stability to Brazil will take time, as well as drastic economic reforms.

Austerity Program Continues

No additional major reforms are expected until President Sarney leaves

office next March. Future policy reforms are hard to anticipate until closer to the November elections. Nonetheless, the next administration's choices will be quite limited, and the government must continue the current austerity program to restore investors' confidence in Brazil's economy.

For agriculture, cuts in federal spending mean lower commodity support prices, less government-subsidized commodity storage, and less subsidized credit at the farm and agro-industry levels. As the agricultural sector adjusts to the rising costs and uncertainty associated with reduced support, growth in agricultural output is likely to slow.

The agricultural sector in Brazil traditionally has been buffered from instability by public policies, with some commodities being more sheltered than others. During periods of hyperinflation, much of Brazil's economy has been indexed, removing some price uncertainty. Restrictions on food imports and indexed minimum prices exist for many commodities, protecting producers from world price shocks.

Historically, one of the predominant programs has been government financing of production and marketing costs at subsidized interest rates. During times of high inflation, the subsidized interest rates have often been less than the inflation rate. Now, subsidized agricultural interest rates are adjusted for inflation, although they are still below commercial interest rates.

The subsidies to agriculture in many cases offset only the implicit tax imposed by exchange rate policies, which have consistently overvalued Brazil's currency.

Wheat and Cane Up, Coffee and Cocoa About Flat

Brazil's agricultural output grew during 1980-88 at an annual rate of 3.9 percent for crops and 3.8 for livestock products. The fastest growth has been registered in the highly supported wheat and sugarcane sectors, followed by oranges, soybeans, and annual cotton, whose expansion was stimulated by favorable world prices.

Traditional export crops such as coffee and cocoa averaged almost zero growth, and production of perennial cotton, peanuts, and manioc declined.

Production of crops for domestic consumption (except wheat) has not grown as strongly, in part because they receive little or no support from the international market, and also because governmental intervention has increasingly shocked producers with price freezes and other sharp policy shifts.

In addition, consumers' real earnings are falling, cutting domestic demand, and hastening farmers' shift to export commodities. Most affected by poor economic conditions has been red meat production. Since 1980, annual growth in cattle slaughter has averaged only 1.0 percent, while pig slaughter averaged 2.9 percent. Yet poultry production has grown an average 4.7 percent because of expanding poultry exports.

Policies Moving Toward Privatization

Accustomed to a high degree of government market intervention, Brazilian agri-

culture now faces the likelihood of increased privatization of market storage and other transactions.

The coffee market is now adjusting to privatization, reflecting the breakdown of the International Coffee Agreement. The government just announced plans to give the private sector control of sugar, alcohol, and honey exports. But plans to privatize the domestic wheat market may have been postponed indefinitely.

Though privatization should increase market efficiency in the long run by lowering marketing costs, the uncertainty during the transition could cut output as producers adjust. In the future, commodity storage programs and corn imports are likely to move toward privatization.

Transportation Costs Rise

The financial crisis has depressed agricultural growth indirectly by reducing public and private funds available to maintain and expand Brazil's infrastructure. As a result, transportation costs are relatively high, reducing the competitiveness of Brazilian producers and putting a cloud over growth prospects. Many rail

and road projects have been abandoned, or are taking more time and money to complete; high transportation costs will continue to constrain agricultural expansion.

If the policies advocated by President Sarney continue after the election, farmers will see further cuts in subsidized credit, especially for producers of export commodities and for large and medium-sized producers of all commodities. Last year, the real value of production credit was reduced by 41 percent. Subsidized credit is now indexed to inflation, so that annual inflation-adjusted interest rates are remaining at about 12 percent.

Reduced credit and higher real interest rates will lead to lower growth rates for export crops such as soybeans, especially if the currency remains overvalued.

There are some indications that, regardless of the level of agricultural sector support, government policies will favor domestic food production. Brazil's first farm bill should be completed in early October. Drafts of the bill strongly support domestic food sectors, and the legislation should set the direction for future policies. *(Emily McClain (202) 786-1664)*

Skies Still Sunny for Brazil's O.J.

Brazil's economic stagnation is not expected to affect one thriving segment of its farm economy—orange production. Some Brazilians call the evolution of their orange juice industry into the world's largest producer and exporter "the Brazilian miracle."

Operating in a market once dominated by Florida, Brazil is now harvesting a record orange crop that could exceed 265 million boxes of fruit (up from last year's 220 million). This is more than double Florida's last crop. Of this total, about 80 percent will be processed into juice, almost all exported to the U.S., Europe, and Canada.

Brazil's climb to the top in world citrus has been aided by several factors, the most important being the series of severe

freezes that crippled Florida's industry during 1980-85. The freezes pushed down Florida production and tree numbers, and drove up world prices, which in turn stimulated expansion in Brazil. Brazilian orange juice exports exceeded \$1 billion last year, the third largest agricultural export after soybean products and coffee.

While production in Florida is just recovering to pre-freeze levels, world demand for orange juice continues to expand, and with it, Brazil's citrus industry. Production is now moving outside of the traditional area in Sao Paulo state, to both the south (Parana) and the north.

Between 15 and 16 million new trees were planted last season, and about 20 million more are expected next season. Since this planting rate exceeds replacement needs, Brazil probably can expand production for many years to come.

Upcoming Economic Reports

Summary Released	Title
September	
7	Fruit
12	World Ag. Supply & Demand
14	Sugar & Sweeteners
19	Tobacco
20	Agricultural Outlook
21	Agricultural Resources
22	Livestock & Poultry Update
25	World Agriculture
27	Aquaculture
	Foreign Ag. Trade Update



Farm Finance

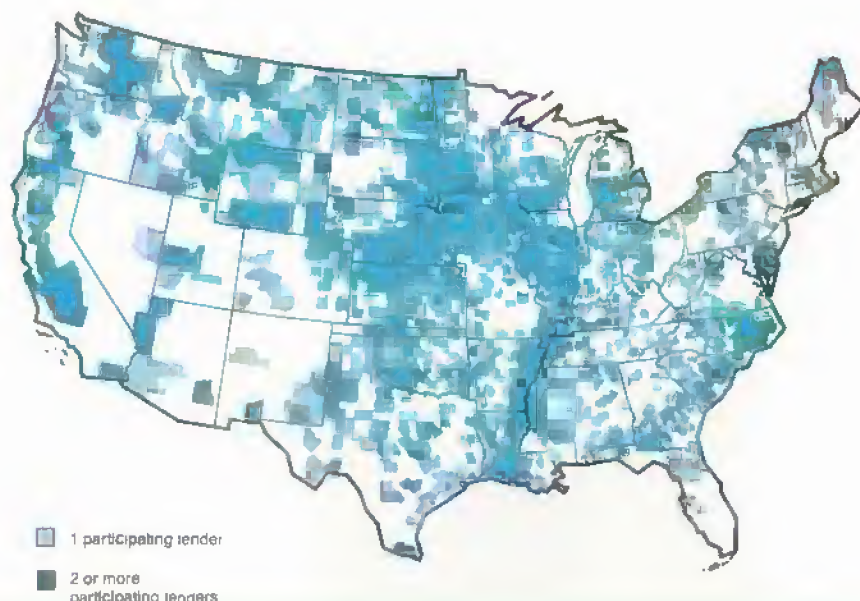
FmHA Guarantees Boost Lending in Some Areas

Commercial banks have substantially increased their farm lending, owing to their participation in the farm loan guarantee programs of the Farmers Home Administration (FmHA). A recent ERS study shows that although the increase was less than dollar-for-dollar, it was significant and widespread among participating banks. So, the guarantee programs appear to be increasing the availability of agricultural credit within the local markets served by participating lenders.

But the study also raises questions about borrower access to the programs. Commercial banks are the major suppliers of FmHA-guaranteed loans. But only about one-fourth of the rural-headquartered banks considered as potential program users actually participated during fiscal 1988.

When compared with nonparticipating banks, the participants tended to be larger, aggressive banks specializing in agricultural lending. Participating banks were more likely to have problems with their farm loan portfolios—higher delinquency rates, larger loan losses—and were more likely to be experiencing other financial difficulties.

Some Areas Lack Lenders Using FmHA Guarantees



■ 1 participating lender
■ 2 or more participating lenders

Nearly Half of Rural Counties Lack a Participating Lender

Extent of program coverage	All rural counties	Counties in which the ratio of farm to total earned income is:		
		Under 5%	5.0-19.9%	20% and up
Number of rural counties	2,383	1,191	872	320
Percent				
Counties served by:				
No participating lenders	44	55	35	27
1 participating lender	25	23	25	29
2 or more participating lenders	31	22	40	44
Counties served by one or more participating:				
Commercial banks	49	36	60	68
FCS institutions	19	20	21	13
Other lenders	2	1	2	3

Note: County coverage is determined by the presence of one or more participating borrowers residing in the county.

Source: Calculated from information in FmHA's loan guarantee master file as of September 30, 1988. Farm and total personal income data from Local Area Income Files, Bureau of Economic Analysis, 1986.

Commercial Banks Make Lion's Share of Guaranteed Loans

Loan characteristics and program type	Type of lender				
	Commercial banks	FCS	Savings & loans	Credit unions	Other
Number of participating firms*	2,054	186	18	6	10
Farm ownership	668	92	10	1	2
Farm operating	1,819	139	8	6	10
Number of loans	6,612	1,492	23	12	108
Farm ownership	967	213	12	1	9
Farm operating	5,645	1,279	11	11	99
Average loan size (\$)					
Farm ownership	137,698	139,969	122,587	170,000	174,111
Farm operating	89,391	88,553	68,374	92,584	133,663
Average interest rate (%)					
Farm ownership	10.7	10.2	10.8	12.0	10.9
Farm operating	11.3	10.4	11.0	11.5	11.0

*Number of firms making one or more guaranteed farm ownership or operating loans during fiscal 1988.

Source: Calculated from information in FmHA's loan guarantee master file as of September 30, 1988.

Guarantee Programs Are Growing in Importance

Largely in response to Federal budget pressures, the FmHA has shifted its farm lending from direct loans to guaranteed private-lender loans. Under its loan guarantee programs, FmHA pledges to repay up to 90 percent of the outstanding principal and accrued interest on FmHA-approved, privately extended loans that go into default.

By reducing the default risk and increasing the liquidity of guaranteed loans, FmHA's guarantee programs are meant to entice private lenders to extend credit to family-sized farmers unable to meet normal credit standards.

Loan guarantees have grown in popularity among policymakers because they cost less than direct loans and remain off-budget until the Government has to make good on its guarantees. Costs are believed to be lower for several reasons: private lenders apply their expertise in selecting and servicing guaranteed loans; loan terms and standards mirror market conditions more closely than do direct Federal loans; and, in case of default, Government losses are limited to the guaranteed portion of the loan.

Bank Participation Increases Credit Availability

One of the suspicions often voiced about the guarantee programs is that lenders use guarantees only to improve the creditworthiness of their existing farm loan portfolio. Thus, the argument goes, the guarantee programs help lenders rather than their borrowers or the agricultural sector.

But even if the guarantees are used only for existing customers, the programs still benefit borrowers and increase the availability of farm and rural credit. Without a guarantee, lenders might cease extending loans to some of the financially stressed borrowers that FmHA's programs allow them to continue servicing. Furthermore, as FmHA guarantees raise the quality and liquidity of a lender's loan portfolio, the lender can afford to extend more credit to local borrowers.

An analysis of participating banks found that, during fiscal 1988, the guarantees appeared to encourage participating bank-

Program Activity During Fiscal 1988

Of the 8,247 guaranteed farmer loans obligated in fiscal 1988 and closed by the end of the year, 85.4 percent were operating loans and 14.6 percent were farm ownership loans. Loans were made by 2,274 lenders.

The vast majority of lenders were commercial banks, but Farm Credit System (FCS) institutions—Production Credit Associations and Federal Land Banks or their associations—also originated a large number. While less important on a national scale, savings and loan associations, credit unions, and farm finance corporations may have played significant roles in a few local markets.

ers to increase the supply of agricultural loans. When deposit growth, loan-to-deposit ratios, and other explanatory factors were held constant, banks that used the guarantee program most intensively also tended to have the largest increases in outstanding farm loans during the year.

All Borrowers May Not Be Equally Served. . .

Participation patterns during fiscal 1988 indicate that borrowers in the Southeast and Midwest generally have access to one or more lenders willing to make guaranteed loans. However, large portions of the Southwest did not have borrowers participating in the guaranteed programs. Since lender markets often cross county boundaries, determination of whether a county was served is based on the location of borrowers, not of financial institutions.

Perhaps because demand for farm credit was relatively light in 1988, over 40 percent of rural counties had no participating borrowers and, by extension, no participating lenders. Program participation picks up as the importance of the farm sector within the local economy increases.

Still, 27 percent of highly agricultural counties contained no participating borrowers last year, and only 44 percent were served by more than one participating lender. A largely agricultural county is one in which farming accounts for 20 percent or more of total earned income.

The terms on guaranteed loans are negotiated between the borrower and the lender, subject to certain FmHA restrictions. During 1988, average interest rates charged by banks and the FCS on their guaranteed loans were nearly identical to the rates these institutions charged on all of their new farm loans.

While higher than the rates charged by FmHA on its direct loans, these interest rates are not high enough to entice many lenders to seek out high-risk borrowers. Rather, the program is used primarily to service the credit needs of marginally creditworthy borrowers and the lender's existing customers.

. . . But Help May Be on the Way

An area's lack of a participating lender does not necessarily mean that the area is underserved by the programs. If there is no demand for guaranteed loans, then lenders cannot be faulted for failing to supply them. And demand for farm credit, including FmHA direct and guaranteed loans, was unusually low during 1988. But demand cannot create its own supply in markets where lenders have never participated in the guarantee programs.

There is little FmHA can do to force lenders to participate in the guarantee programs. But efforts are underway to make the programs more attractive to lenders.

For example, USDA is setting up a new secondary market for FmHA-guaranteed loans. This market will allow lenders with high loan-to-deposit ratios to more easily make and then sell farm loans. And even for the vast majority of rural banks that have little immediate need to sell their guaranteed loans, the added liquidity afforded by the new secondary market should make the guarantee programs more attractive. [Patrick Sullivan and William Herr (202) 786-1719]



General Economy

Two Scenarios Are Plausible

Slowing real GNP growth, a slightly higher unemployment rate, and a lower underlying inflation rate all suggest that the Federal Reserve Board has successfully cooled an overheating economy. Some analysts believe that the Federal Reserve's easing of monetary policy in June and July has prevented the slowdown from sliding into a downturn.

But despite falling interest rates since March, other analysts foresee a recession in the next few months, and a halt to the 80-month-long expansion. Strict data evaluation does not point conclusively to either side.

A Case for Recession

The contention that a recession is imminent hinges on the belief that Federal Reserve easing has come too late, and that the economy will continue to feel the effects of previously high interest rates for the next 6 months. These analysts maintain that neither the sensitivity of the economy to higher interest rates nor the recovery response time is known precisely. Given these uncertainties, it would be extremely difficult for the Federal Reserve to successfully slow the economy without crippling it.

The recession case seems bolstered by monthly general economic indicators for the first half of the year. Industrial production inched up only 0.4 percent at an annual rate; the Index of Leading Economic Indicators fell 4 months out of 5. Capacity utilization fell from its 84.3-percent expansion high in January; civilian unemployment averaged 5.2 percent for the first half, up 0.2 percentage points from its 14-year low in March.

The Optimistic Case

Other analysts interpret the first-half situation more optimistically and believe that the economy will, after a brief transition, begin to grow in the 2.5- to 3-percent range targeted by the Federal Reserve. They point out that monthly indicators can be misleading for even intermediate-term predictions.

For example, during the current expansion, the Leading Index has twice declined for more than 5 consecutive months. In addition, the relatively low inventory-to-sales ratios over the first half are inconsistent with the usual pre-recession pattern (inventories tend to pile up before a recession, as sales slacken).

The optimistic analysts cite falling interest rates as a major factor propping up growth for the next 12 months. They rely on the overall economy to respond to the recent rate declines more quickly than the recession forecasters expect.

Congressional testimony by both Federal Reserve Chairman Alan Greenspan and Congressional Budget Office Director Robert Reischauer in July concurred with the optimistic position. While conceding that forecasting recessions is an imprecise art, both assert that the economic expansion should continue. Reischauer refers to preliminary research which suggests a 15- to 40-percent chance of a recession in the next 9 months.

Interest Rates, Export Growth Are Crucial Factors

Which group of analysts is more nearly correct will probably not be known for several months, since a recession is only recognized as such well after a downturn occurs. For example, the National Bureau of Economic Research, a private, nonprofit organization that officially dates business cycle peaks and troughs,

Revisions Show New Farm Income Record in 1988

Revised estimates of 1988 income show that farmers' net cash income and net farm income were higher than had been expected. With the 1988/89 crop year now complete, the income picture for calendar 1988 is more clear. Estimates of crop receipts for calendar 1988 depend upon estimates of both 1987/88 and 1988/89 crop year sales.

As forecast, both crop and livestock receipts attained new highs last year. Crop receipts reached an estimated \$72.6 billion, up 0.8 percent from last month's preliminary estimate. Livestock receipts were \$78.9 billion, 1.2 percent over last month's estimate. As a result, cash receipts were \$171.6 billion in 1988, up 0.9 percent from the August estimate.

Revised estimates of expenses are also made in midsummer when new data, pri-

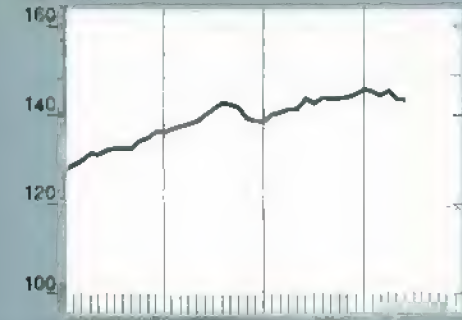
marily from USDA's Farm Costs and Returns Survey, become available. The estimates of expenses are slightly lower than last month's preliminary numbers. Cash expenses for 1988 are now estimated at \$111.7 billion (down 1.2 percent from the August estimate) and total expenses at \$132.0 billion (down 0.8 percent).

The relatively small revisions in the estimates for receipts and expenses by themselves would result in higher estimates of net income. Together, they raise the estimate of net cash income to \$59.9 billion (up 3.3 percent from the August estimate) and net farm income to \$45.7 billion (up 3.9 percent). These estimates will be revised as additional data and revisions become available. [Andy Bernal (202) 786-1808]

General Economic Indicators

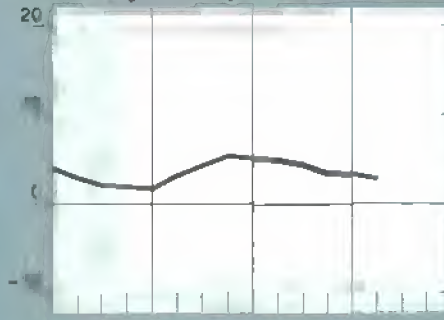
Composite leading economic indicators

1982 = 100



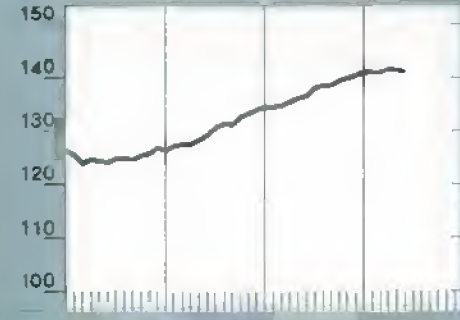
Gross national product¹

Percent change from a year earlier



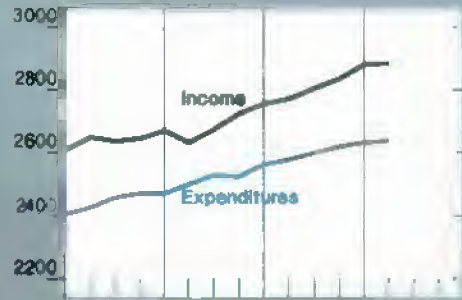
Industrial production

1977 = 100



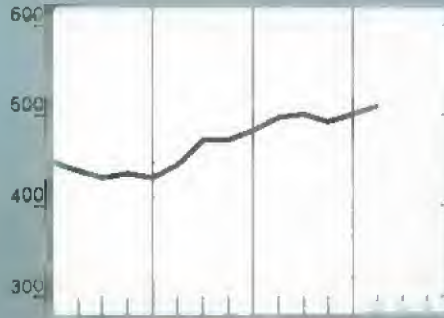
Disposable income and consumption expenditures²

\$ billion



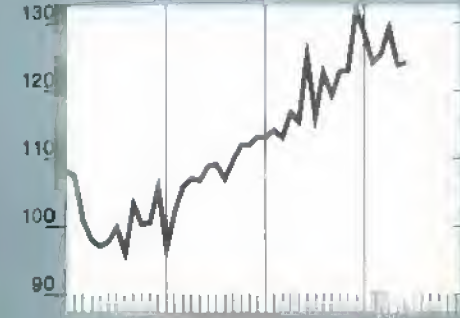
Nonresidential fixed investment²

\$ billion



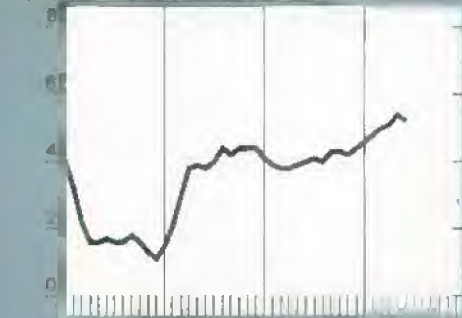
Manufacturers' durable goods orders³

\$ billion



Consumer price index

Percent change from a year earlier



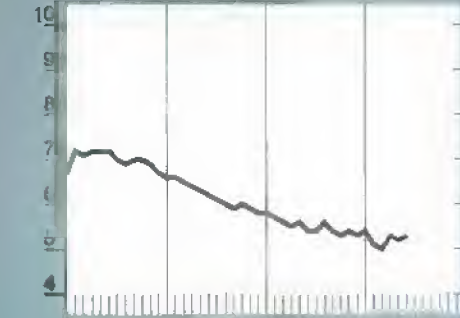
Inventory/sales⁴

Ratio



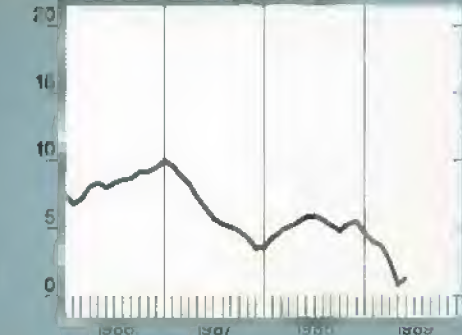
Unemployment rate⁵

Percent of all civilian workers



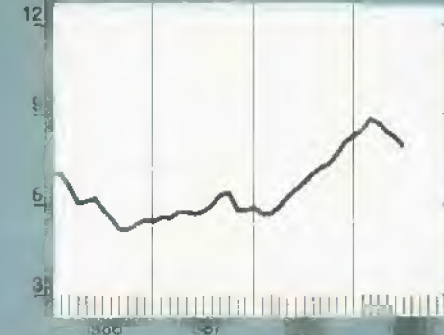
Money supply (M2)

Percent change from a year earlier



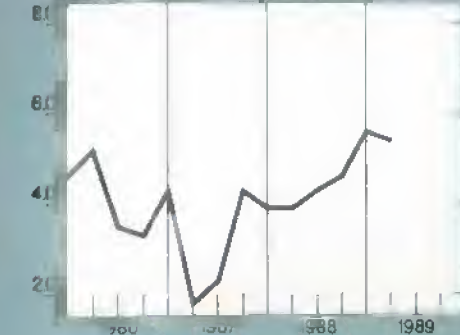
3-month Treasury bill rate

Percent



Savings rate⁶

Percent of disposable personal income



¹Percent change from 4 year earlier in 1982 dollars. Seasonally adjusted annual rates. ²Billions of 1982 dollars seasonally adjusted at annual rates

³Nominal dollars. ⁴Manufacturing and trade, seasonally adjusted based on 1982 dollar. ⁵Seasonally adjusted

⁶Calculated from disposition of personal income in 1982 dollars, seasonally adjusted at annual rates

Sources: U.S. Dept. of Commerce, U.S. Dept. of Labor, and the Board of Governors of the Federal Reserve System

identified the trough of the last recession 9 months after it occurred.

Moreover, a recession is not inevitable. Instead, continued growth depends crucially on three major factors.

First, interest rates must continue to trend down. Starting in the late spring of 1988, Federal Reserve tightening drove up short-term interest rates by nearly 3 percentage points. This reduced housing starts, which reached a 7-year low in May.

Since March 1989, interest rates have fallen. Rising housing starts in June, after 4 consecutive declining months, may mark the beginning of that sector's recovery. However, to avoid a recession, housing starts will have to gain solid ground by early fall.

Low interest rates should also spur consumer spending. Retail sales have been down or grown negligibly in the past 6 months. One sector hit particularly hard is autos, whose monthly production reached a 15-month low in June. Lower interest rates are likely to buoy auto sales.

Second, relatively robust export growth must continue. Since the second quarter of 1986, exports have risen \$195.5 billion, accounting for 47 percent of the gain in real GNP. Much of that gain was due to the 42-percent decline in the value of the dollar between February 1985 and December 1988.

As interest rates began rising in the spring of 1988, so did the value of the dollar, which appreciated 8.3 percent from January through June 1989. Export growth could begin to slow as a result, putting continued expansion at risk.

Nonetheless, some factors point to a favorable export outlook. Economic growth in the developed countries has been relatively strong, which leads to greater demand for U.S. goods.

For example, Japan's industrial production grew 7.8 percent between May 1988 and May 1989. Japan accounts for about

13 percent of U.S. exports in general and 21 percent of U.S. agricultural exports. In addition, the recent downward trend in interest rates could anticipate a lower dollar, supporting the export sector.

Continued robust export growth has favorable repercussions for the rest of the economy. In 1988, a 17.6-percent gain in real exports helped stimulate an 8.4-percent rise in business spending on new plants and equipment. For the first 2 quarters of 1989, real exports grew 12.6 percent at an annual rate, while business spending on new plants and equipment climbed 7.2 percent.

Finally, crude oil and food prices must slow their rise. From October 1988 through March 1989, crude oil prices jumped from \$12.20 per barrel to \$15.62, and consumer food prices rose 5 percent at an annual rate.

At the same time, consumer prices excluding food and energy grew at a 4.1-percent annual rate—only slightly faster than the 4.0-percent average since 1984. More moderate gains in energy and food prices will keep inflation at an acceptable level, enabling the Federal Reserve to continue easing monetary policy.

Two Outlooks: Slight Recession Or Slight Expansion

How fast and how much the economy will react to lower interest rates is unpredictable. However, two plausible outlooks for the next 12 to 18 months stand out.

In the first case, the economy sags into a shallow recession over the next 6 to 9 months. Real GNP likely would decline slightly, retail sales would fall, and the unemployment rate would rise. Growth in disposable income in real terms likely would slow, although declines for several consecutive months are unlikely. At the same time, the economy would experience falling interest rates and a lower underlying inflation rate, since overall demand would be putting less pressure on capacity.

This recession, should it appear, is not likely to last long because of the low inventory-to-sales ratio. Even analysts calling for a recession are looking for a

relatively mild one; historically, business cycle contractions over the postwar period have averaged 11 months.

A second plausible outlook is for real GNP to grow slowly in the third quarter, but for growth to resume a 2- to 3-percent pace in the following 6 months. In this case, retail sales, disposable income, and employment would expand marginally in the near term, but begin to pick up speed in the last part of this year and the early part of 1990.

Interest rates likely would continue declining in this scenario, largely because of continued Federal Reserve easing and slower credit demand growth, at least through the end of this year. As growth resumed, interest rates likely would stabilize at that lower level through the middle of 1990.

How Agriculture Will Fare

Agriculture is likely to find the general economic environment mildly supportive, no matter which of the two outlooks materializes. Lower interest rates, a facet of both outlooks, will tend to reduce the sector's interest expense directly. And, should lower interest rates drive down the value of the dollar, agricultural competitiveness should improve. Sustained lower interest rates may also provide support for land values.

However, on the demand side, slower consumer spending and perhaps slower growth abroad (if a domestic recession generates slower growth worldwide) could slightly reduce the demand for agricultural products. Overall, except in the case of a severe recession, demand reductions are likely to be minimal. [Elizabeth A. Mack and Ralph M. Monaco (202) 786-1782]



Rural Development

Needed: A Balanced Approach to Rural Development

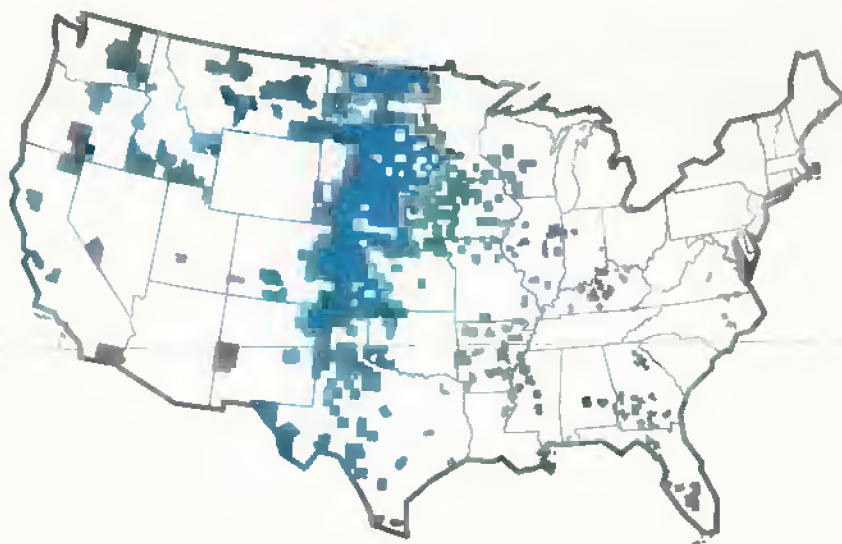
For most of the 1980's, the U.S. rural economy has seriously lagged behind the national economy. Overall, rural job growth has been less than half the metropolitan area rate, and rural unemployment has been consistently higher by a significant margin.

Recent improvements in rural job creation, while encouraging, are only now bringing the rural economy back to pre-recession levels. The boom and bust experience of the 1980's points to the underlying vulnerability of the rural economy, which falls the furthest and recovers the slowest from any economic downturn.

The rural economic problems of the 1980's were not principally the result of financial problems in the farm sector, despite the coincidence in timing. Decades ago, the rural economy was dominated by farming; now, most rural areas depend on nonfarm industries.

Although 9 out of 10 rural workers are employed in nonfarm industries, farm programs still dominate Federal rural policy. Farm programs provide income transfers that benefit some farmers,

By 1986, Only About 500 Rural Counties Depended on Farming*



*In a farming-dependent county, 20 percent or more of labor and proprietors' income comes from farming over a 5-year period.

closely linked businesses, and farming-dependent economies. But they are not designed to ease the economic adjustment problems facing many rural areas, or to promote long-term economic development, even in farming-dependent counties.

Agriculture's Role Is Shrinking

Most rural land is taken up by agriculture, but other industries—especially manufacturing, mining, and government—employ most rural workers. Sixty-five percent of rural workers are employed in services firms, the leading source of rural job growth; manufacturing employs about 17 percent. Farming employs less than 9 percent, down 6 percentage points since 1969. Closely linked farm services and inputs businesses account for only 4 percent of rural employment.

The importance of these industries varies among regions. Some 500 rural counties, about a fifth of all rural counties, depend heavily on farming. About 575 rural counties rely mainly on manufacturing. Still others depend on mining, oil production, or large public institutions such as universities, parks, and military bases.

Agriculture is critical to the national economy as a source of raw materials and export earnings. But agriculture's contribution to employment and income has diminished in recent years. Since the mid-1970's, the food and fiber system's share of both employment and GNP has dropped about 5 percentage points. Meanwhile, farm employment fell from 3.2 to 1.6 percent of total national employment.

Continuing technological advances make further declines in the number of farms and farm workers likely, even as farm output continues to grow. In the past decade, labor productivity in farming grew more than 40 percent. Productivity growth probably will not slacken in coming years.

Off-Farm Jobs Help Maintain Farm Families

More and more, it is nonfarm industries that sustain life not only in rural communities but also on the farm. In 1986, 60 percent of all farm households had income from some nonfarm job or business. Overall, 60 percent of farm household income came from nonfarm sources. Increasingly, farming as a lifestyle choice is being sustained by work off the farm.

Farm Policy Has Little Effect On Rural Development

The declining importance of farming in the rural economy means that farm programs have become less relevant to rural economic problems. Yet farm program outlays remain well above their 1980 levels, even after receding sharply from their mid-1980's highs. In the meantime, other Federal programs that provided rural nonfarm business development loans and economic development planning assistance were cut heavily in the early 1980's.

Overall, the mix of Federal programs going into rural areas has not significantly promoted the independent, innovative economic activity rural areas need to adapt to economic change. The current mix of programs has not been aimed at building worker skills, local institutions, and infrastructure. As a result, rural areas, unlike the cities, largely continue to depend on external investments and income transfers.

Single-sector policies such as farm policy may help the targeted industry, but at the same time they may inhibit economic flexibility, rather than encourage it. By subsidizing inputs such as water and credit or guaranteeing prices, such policies tend to reduce the incentives for labor, land, and capital to move to other activities.

This is not to deny the historical importance of Federal support in improving productivity in the farm sector. Over the years, farm programs have led to expanded output and higher, more stable incomes for many farmers. And in some farming-dependent counties, farm program dollars are an important source of income for the local economy.

But in most rural counties, farmers and nonfarm rural citizens alike would benefit more from a broader perspective on farm and rural policies that gives added weight to nonfarm rural industries. This, in turn, would help rural communities retain services vital to all rural residents.

Diverse Rural Issues Point To Broader Policy

While farm policy will continue to be important for rural areas, it faces some new challenges. First is how to accommodate a broader perspective on the role of farms in the rural economy.

The increase in farm size and efficiency has occurred at the cost of economic stagnation in many small towns. Widespread concern about "family-sized" farms and population outmigration points out that farms are valued by society for more than their output. In many rural areas, farms provide the structure around which rural community life is organized.

The farm character of the rural landscape is also attractive to tourists and new residents. In the 1970's and 1980's, rural growth was fastest in places that catered to retirees.

In some regions, economic development in the tourism and retirement industries may be enhanced by farm programs that encourage small-scale farming operations. While small farms may add little to meeting the nation's food and fiber needs, their indirect contribution to other social goals, including job creation in other rural industries, may be significant.

A second issue concerns the on- and off-farm incomes of farm families. Historically, farm policy improved the balance sheet and income statement of farm enterprises by regulating the level of production, the cost of some inputs, and the level of prices. As long as farm families depended on farming, farm policy could be an effective income policy for farmers.

But the well-being of most farm families now depends heavily on off-farm income, and farm policy is less able to meet their needs as it once did. The benefits of nonfarm business development are not limited to nonfarm residents; farm families depend on these jobs as well. [Norman Reid (202) 786-1542]

Nonmetro Employment Update: Second-Quarter 1989

Rural areas are making an economic comeback after the soaring unemployment rates and stagnant job growth of the early 1980's. Annual average unemployment in nonmetro areas has declined consistently since 1985, and in 1988 nonmetro employment growth began to exceed that of metro areas. While some groups of rural residents continue to experience serious employment disadvantages, rural areas in general are rapidly approaching prerecession employment conditions.

Nonmetro employment conditions are increasingly important for farmers, as more and more farm families rely on off-farm earnings to supplement their income. In 1987, over half of all farm operators held off-farm jobs. Farmers' success in finding adequate off-farm jobs will depend in part on the health of the rural economy and the characteristics of the rural labor market.

Nonmetro Employment Outpaced Metro Employment Growth

Nonmetro employment in second-quarter 1989 was 941,000 over a year earlier, an increase of 3.9 percent. During the same period, metro employment grew by 1.8 percent. The last two quarters of 1988 marked the first time since the end of the 1980-82 recession that employment growth in nonmetro areas has exceeded that of metro areas. Most of the recent employment gains in nonmetro areas were among whites, women, and workers aged 35-54.

Also, substantial increases in the nonmetro civilian labor force suggest that employment growth is now reflecting an expansion of the labor force as well as rehiring of the unemployed.

In second-quarter 1989, nonmetro labor force participation rose to almost 64 percent, the highest rate of any quarter since the data were first collected in 1973. By midyear, 26.4 million people 16 years and older were in the nonmetropolitan

labor force, accounting for about 21 percent of the total U.S. labor force.

Rural Unemployment Rates Down

Annual average unemployment in nonmetro areas has declined fairly consistently since its peak of 10.1 percent during the 1980-82 recession. This trend continued as nonmetro unemployment rates dropped from 6.0 percent in second-quarter 1988 to 5.6 percent in 1989, the lowest second-quarter level in 10 years. However, nonmetro unemployment rates still remain higher than metro rates, and nonmetro unemployment has not yet fallen to prerecession levels.

Some rural population subgroups continue to experience relatively high unemployment. Nonmetro youth and minorities, for example, face higher unemployment than their counterparts in metro areas or other workers in nonmetro areas.

In the second quarter of 1989, 16.1 percent of nonmetro teenagers, 12.2 percent of blacks, and 9.4 percent of Hispanics were looking for work. Among black youth, the unemployment rate exceeded 38 percent.

At the same time, it is these groups (except teenagers in general) that have improved the most in terms of declining

unemployment. This suggests that as the economy moves toward full employment, the more hard-core unemployed are getting jobs.

Adjusted Rates Down Too

The official statistics tend to underestimate unemployment, especially in nonmetro areas, because they do not consider discouraged workers or the underemployed. The nonmetro adjusted unemployment rate, which includes those who have given up looking for work and half of those who work part-time but who want full-time work, was 8.9 percent at mid-1989.

The adjusted unemployment rate in metro areas was 7.5 percent. The adjusted rates for metro and nonmetro areas have both fallen dramatically in recent years, and the metro-nonmetro gap continues to narrow.

Steady job growth and continued relatively low nonmetro unemployment bode well for rural areas. The U.S. economy has been operating near its peak—the economy continues to generate new jobs, inflationary pressures appear to be easing, and the price of the dollar favors U.S. exports.

However, some indicators suggest that economic growth is slowing (see the General Economy article giving the macro outlook). Past trends have shown that during downturns the nonmetro economy deteriorates further and recovers more slowly than metro areas.

Should national economic conditions falter in the near future, nonmetro areas could once again face heightened economic and employment problems. The last few quarters have not removed rural areas' greater vulnerability to economic problems. [Leslie A. Whitener (202) 786-1540]

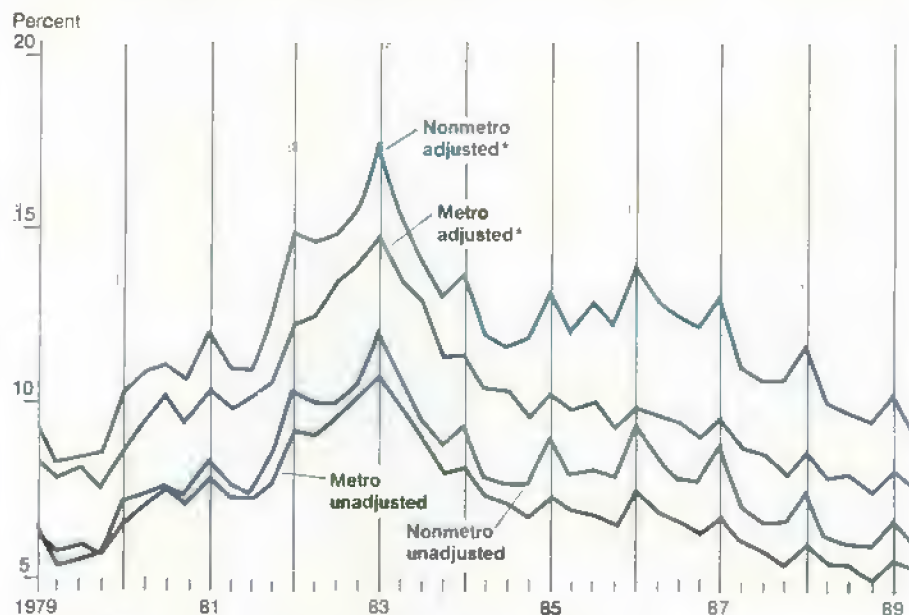
Nonmetro Unemployment Declines

	Second quarter 1989	Thousands	Second quarter 1988
Civilian labor force	26,389		25,513
Total employed	24,919		23,978
Unemployed	1,470		1,535
Unemployment rate		Percent	
All civilian workers	5.6		6.0
Adult men	4.5		5.0
Adult women	5.1		5.5
Teenagers	16.1		16.4
White	4.9		5.2
Black	12.2		14.4
Black teenagers	38.3		44.6
Hispanic	9.4		12.7
Adjusted unemployment rate*	8.9		9.8

*Adjusted to include discouraged workers and one-half of the workers employed part-time for economic reasons.

Source: Bureau of the Census, Current Population Survey. Data are not seasonally adjusted.

Rural Unemployment Falls, But Still Greater Than in Metro Areas



*Adjusted to include discouraged jobseekers and underemployed workers.



Food and Marketing

Food Prices To Be Flat

The Consumer Price Index (CPI) for food in 1989 is expected to average 5 to 7 percent above 1988. Prices for red meats, poultry, eggs, fresh vegetables, and processed vegetables rose sharply during the first half of the year.

Although most of these will decline in the second half, overall food prices will be about steady.

Meat Prices To Drop

Higher retail beef prices early in the year drove the CPI increase for red meats. Strong consumer demand and smaller supplies pushed beef prices up at an annual rate of nearly 9 percent during the first half compared with the last half of 1988. With total meat production rising slightly in the third quarter, beef prices have since declined somewhat. Although prices in the second half will average lower, retail beef prices for the year are expected to average 4 to 6 percent above 1988.

Pork supplies have been ample, and retail pork prices have remained relatively stable through most of 1989. Pork supplies are expected to increase in the fourth quarter, and retail pork prices will fall. This should hold down the 1989 increase in the total red meat CPI to 2 to 4 percent above 1988.

Pork Prices To Drop in 1989

Item	1985	1986	1987	1988	1989 F
Food at home	1.4	3.2	4.3	4.2	5 to 7
Beef and Veal	-2.1	0.6	7.6	5.5	4 to 6
Pork	0.2	8.2	8.2	-3.0	0 to -2
Poultry	-1.0	7.5	-1.4	7.2	6 to 8
Fish and seafood	4.9	9.2	10.6	5.8	4 to 6
Eggs	-16.6	6.9	-5.9	2.3	15 to 20
Dairy products	1.9	0.2	2.5	2.4	5 to 7
Fresh fruit	10.1	2.1	11.2	8.3	6 to 8
Processed fruit	4.1	-2.9	4.0	10.3	4 to 6
Fresh vegetables	-4.3	4.0	12.9	6.3	7 to 9
Processed vegetables	1.1	-0.2	2.8	4.8	10 to 12
Fats and oils	2.2	-2.2	1.5	4.6	7 to 9
Sugar and sweets	2.5	3.1	1.8	2.7	4 to 6
Cereal and bakery products	3.8	2.8	3.5	6.4	7 to 9
Nonalcoholic beverages	2.0	5.9	-2.6	0.0	3 to 5
Food away from home	4.0	3.9	4.0	4.1	4 to 6
All food	2.3	3.2	4.1	4.1	5 to 7

F = Forecast.

Source: Bureau of Labor Statistics, Department of Labor.

Thanks to strong broiler demand, particularly from the fast food industry, the poultry CPI rose sharply in the first half of 1989. Consumer demand for food away from home continues to grow, and fast food firms are vying for shares of that market. One way to compete is to expand menus, and various chicken entrees have become the most popular new items.

Chicken production has been expanding to satisfy the new demand, but prices were being bid up as grocery stores and restaurants competed for supplies. Prices for chicken likely will slip in the second half, but not enough to offset the higher prices earlier in the year. For the year, the poultry CPI is likely to average 6 to 8 percent above 1988.

Potatoes and Tomatoes Drive Vegetable Prices

Potato and tomato prices sharply increased the CPI for fresh vegetables in the first half. Higher potato prices resulted from supply shortages caused by last summer's drought. So potato storage supplies have been drawn down much faster than usual.

This year's summer potato crop was perhaps not large enough to offer much price relief. Acreage for harvest this fall is only fractionally larger than last year, so the fall harvest will not bring prices down to last year's levels.

Retail tomato prices in the first half of 1989 were, at times, more than 50 percent above a year earlier. Fresh tomatoes were in short supply and demand was

increasing. Fast food firms were introducing new entrees with tomatoes, which added pressure to prices.

A freeze in Mexico, where many winter fresh vegetable imports originate, reduced tomato shipments considerably. In late March, a freeze damaged Florida tomatoes and young tomato sets slated for spring harvest. As a result, the spring crop was delayed and supplies were low through May.

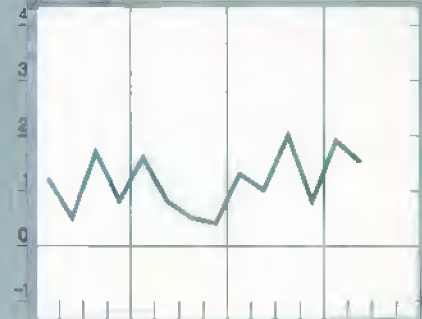
By June, however, retail tomato prices started to decline, while remaining above a year earlier. As the summer advanced and fresh tomato production spread across the country, prices returned to more normal levels.

Processed vegetable prices have also been higher. Supplies of canned vegetables have been tight since last year. Green peas, snap beans, and sweet corn have been in short supply because of damage from last summer's drought. Retail prices of canned tomato paste products have also been high because of shortages in the world market. With canned vegetable supplies down and prices high, demand for frozen vegetables increased as consumers substituted frozen for canned. The stronger demand pushed frozen vegetable prices higher also.

Acreage devoted to processing vegetables increased 14 percent this year. With prospects of a much larger pack, supply conditions should improve and retail prices likely will decline slightly by year-end. Nevertheless, the average CPI for processed vegetables in 1989 will be well above 1988. [Ralph Parlett (202) 786-1879]

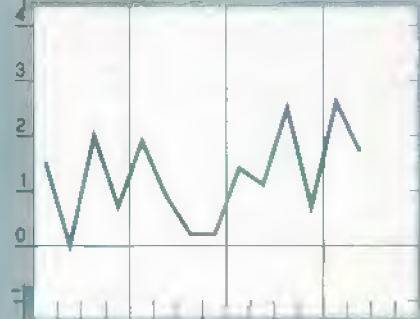
CPI: Total food^o

Percent change



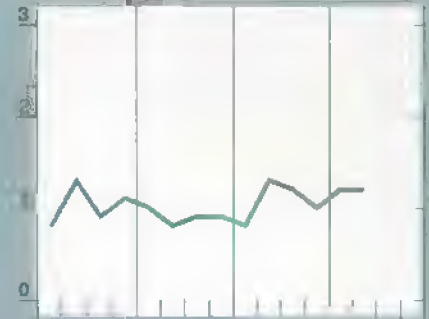
CPI: Food at home^o

Percent change



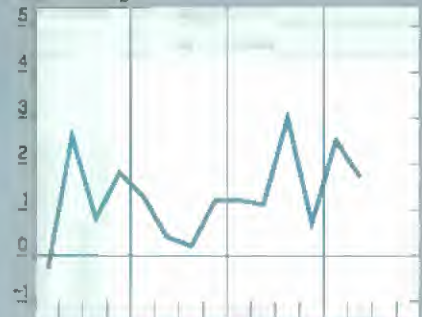
CPI: Food away from home^o

Percent change



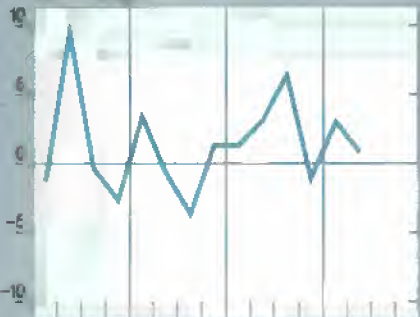
Retail cost of food¹

Percent change



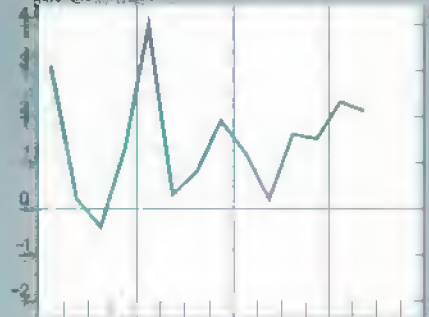
Farm value of food¹

Percent change



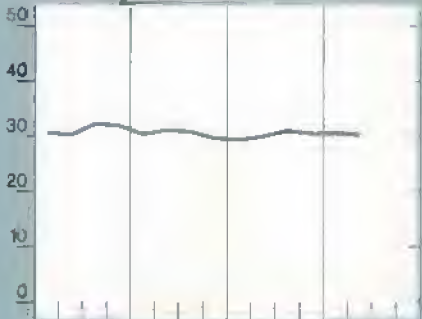
Farm-retail spread¹

Percent change



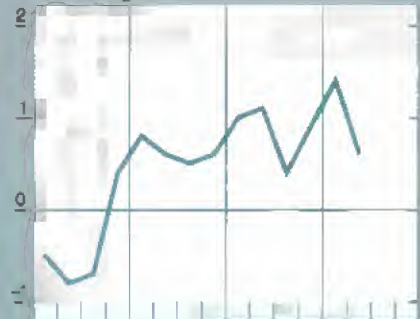
Farm value/retail cost¹

Percent change



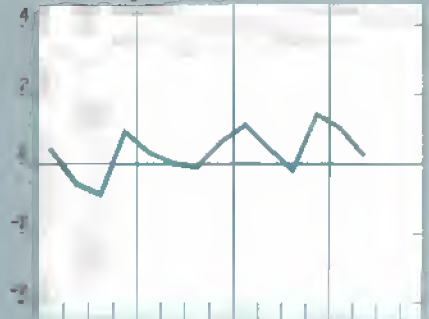
Food marketing cost index²

Percent change



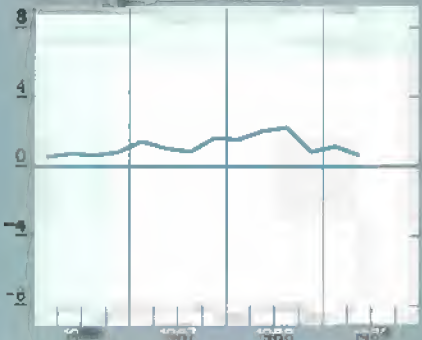
Index of hourly earnings^{3,4}

Percent change



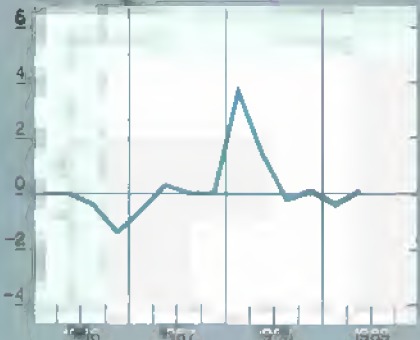
Index of packaging prices⁴

Percent change



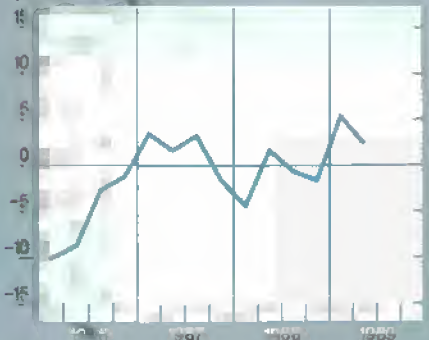
Index of rail freight rates⁴

Percent change



Index of energy rates⁴

Percent change



^oCPI unadjusted. ¹Index based on market basket of farm foods. ²Index of changes in labor, packaging, transportation, energy, and other marketing costs.

³In food retailing, wholesaling, and processing. ⁴Component of food marketing cost index.

All series expressed as percentage change from preceding quarter, except for "Farm value/retail cost" chart.



Special Article

Liberalizing World Trade In Rice

This is the second in a series summarizing research on what could happen as negotiations under the GATT (General Agreement on Tariffs and Trade) move toward free trade in agriculture. Negotiators at the April review of the Uruguay Round agreed to "substantial progressive reductions in agricultural support and protection over an agreed period of time."

While there are adjustment costs involved in moving away from protectionism, both theory and research results suggest that the benefits of freer trade outweigh the costs. Because there never has been free trade in agriculture, the findings in these articles are, of necessity, speculative. The results here represent a consensus of research conducted by the Economic Research Service, universities, and international organizations. A longer, in-depth research report lies behind each article, and will be available from the authors.—Ed.

Reflecting efficiency gains, world income would increase by moving toward free trade in the world rice market. But, some countries would gain export markets while others would lose markets. In the near term, world rice prices and volume traded would both rise, as opening Japan's large and lucrative market would dominate other forces. U.S. rice growers in California likely would gain, while those in the South might earn lower returns. Thailand would gain, but low-income developing countries that depend on food aid could experience a decline in living standards. Food aid recipients could lose, reflecting less global surplus production and higher prices that would cut the value of aid dollars.

The trade liberalization initiatives aimed at agriculture would apply globally. But some developing countries likely would receive special treatment, allowing them to continue developing their agricultural sectors. Several centrally planned economies may participate somewhat, but are not formally committed to trade liberalization.

So it is unlikely that increases in the world price of rice would be fully transmitted to all domestic markets. A more likely outcome is that the nonparticipants would allow the price increases to be partially transmitted into local markets.

Policies Have Cut World Prices and Trade

Trade and domestic policies around the world have distorted the world rice market. Japan's virtual ban on rice imports reduces world trade and depresses prices. Producer incentives in the U.S. and the EC encourage high-cost production and require subsidized export disposal schemes, which further dampen world prices. Finally, without a reliable world rice market to turn to, many Asian countries pursue self-sufficiency almost at any cost, leading to high-cost rice production, large stocks, and high government expenditures.

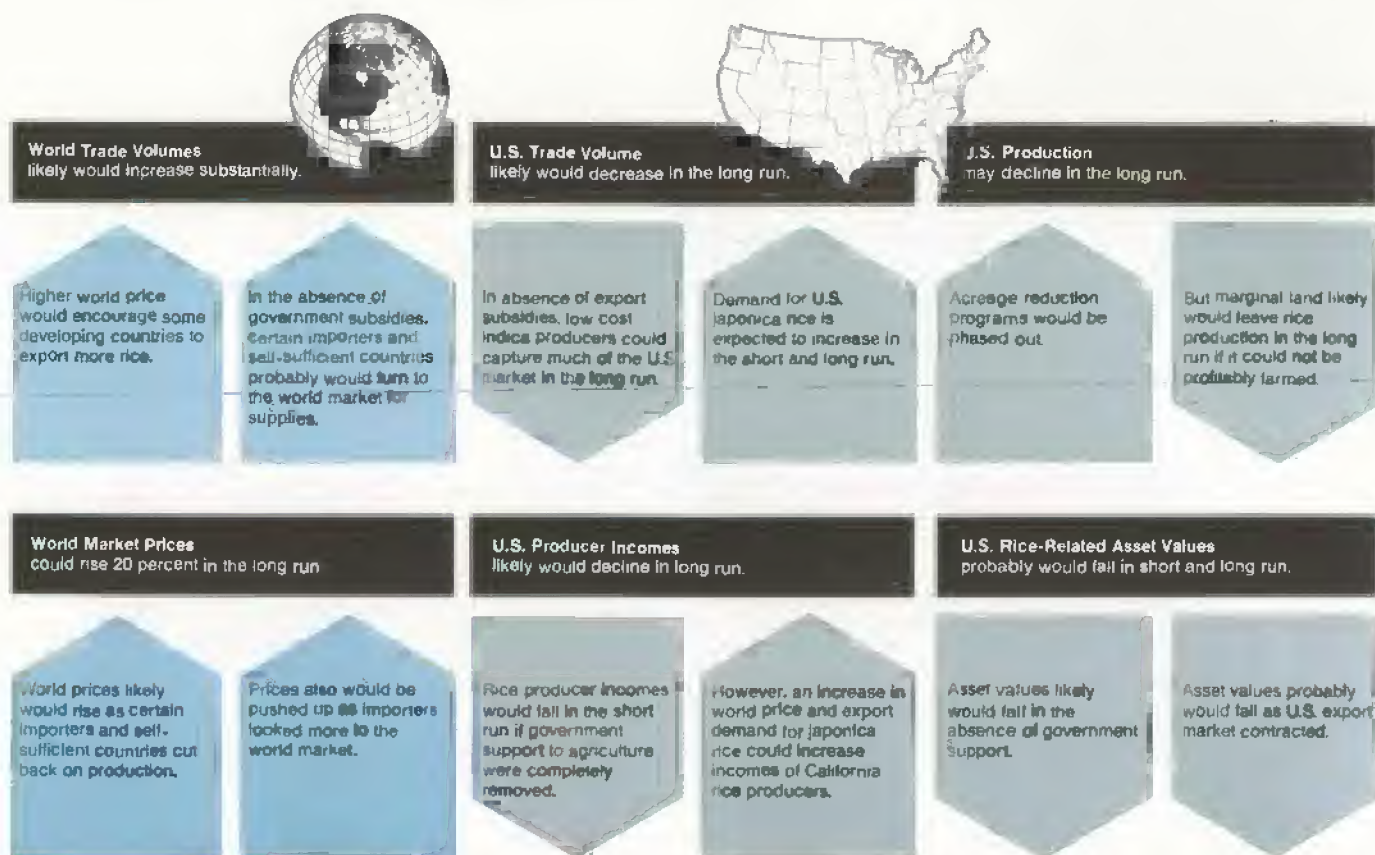
The resulting depressed world prices have deterred production in some low-cost producing countries (such as Pakistan), shrinking their potential exports, income, and foreign exchange earnings. High domestic retail rice prices have reduced consumers' purchasing power in Japan, South Korea, and Taiwan.

Meanwhile, government outlays for rice programs in the EC and U.S. have skyrocketed in the 1980's, providing more momentum for trade reform. In Indonesia and Malaysia, rising government costs for rice programs and production inefficiencies from input subsidies have burdened taxpayers and consumers.

Could Free Trade Increase Risk in the World Rice Market?

Rice production in the U.S. is much more stable and far less dependent on weather-related uncertainties than it is in Asia. Yet the U.S. is expected to have smaller rice stocks under trade liberalization. In the event of a severe weather-induced rice shortage in Asia, would smaller U.S. stocks make the world rice market more volatile? Would trade liberalization actually increase risk in the world rice market?

Not substantially. The U.S. currently accounts for less than 2 percent of global production. So in the unlikely event of a severe food shortage, the U.S. could supply only a very small portion of Asia's rice needs, even without trade liberalization.



Export Market Concentrated

A few countries dominate rice exports, and trade volume is small relative to production. Less than 4 percent of rice is traded internationally. Thailand is the largest exporter and a low-cost producer; it accounted for 30 to 40 percent of the market during 1985-88. The U.S. ranks second with about 20 percent of world trade in the 1980's, but over half of U.S. exports are Government assisted. Pakistan, China, Burma, and Australia account for most of the remaining exports, while India and Brazil occasionally export rice.

Rice trade is split by variety, and substitution is limited, further thinning the small export market. Indica and japonica rice account for roughly 98 percent of global production and trade. Japonica rice (medium and short grain) is produced in temperate climates and normally accounts for about 15 percent of trade and 10 percent of production.

Because the principal exporters of japonica rice—the U.S., Australia, and Italy—are small producers, the potential for japonica trade to expand substantially in the short run is limited. The Japanese grow and consume a high-quality japonica rice, and account for one-third of world consumption.

Indica rice (long-grain) is generally grown in tropical climates and accounts for almost 90 percent of world production. Thailand, Pakistan, China, and the southern U.S. are the principal exporters of indica rice.

Many Countries Import Rice

In contrast to exports, the import side of rice trade is widely diffused and volatile. Iraq, Iran, Saudi Arabia, the EC, Malaysia, Bangladesh, China, and Sub-Saharan Africa have been principal importers in the 1980's.

Although once accounting for over half of world imports, Asian countries have successfully pursued policies of self-sufficiency since the 1970's, and currently account for less than a third of world imports. Self-sufficiency policies have been especially costly to consumers in Japan, South Korea, and Taiwan, and, to a lesser extent, to consumers in Indonesia and Malaysia. The viability of pursuing self-sufficiency at any cost is now being debated in Indonesia and other Asian countries.

Levels of Support Are High

Rice is vital to the diet of most Asians; this, coupled with the production uncertainties that go with the Asian monsoon, has resulted in rice producers' receiving more government assistance than most commodity producers. Taiwan, South Korea, and Japan have achieved self-sufficiency in rice through import restrictions and government procurement. Worldwide, the highest level of producer support is provided by the Japanese; South Korea ranks second.

Producer Subsidy Equivalents (PSE's) for Rice 1/

Countries	Average 1982-86	1986
Developed countries		
Japan	88.3	94.3
EC-12	46.6	73.3
United States	45.2	71.7
Australia	13.8	21.8
Developing rice-importing or self-sufficient countries		
South Korea	72.1	76.6
Brazil	51.3	64.2
Taiwan	28.5	31.5
Bangladesh	7.0	17.0
Indonesia	14.4	19.7
India	-16.9	-4.9
Nigeria	-42.6	-22.9
Developing rice-exporting countries		
Thailand 2/	-5.5	5.2
Pakistan (basmati)	-104.4	-123.0
Pakistan (coarse)	-8.0	-2.0

1/ The ratio of total government transfers to total farm revenue (including direct payments), as a percentage. A negative PSE means that the net effect of government policies is to tax producers. 2/ Thailand eliminated its export tax in January 1986.

Source: USDA-ERS, Estimates of Producer and Consumer Subsidy Equivalents, April 1988, and unpublished updates.

and Japan—and support levels have increased substantially in the 1980's.

In contrast, low-income rice-importing countries assist producers primarily by subsidizing inputs, technological assistance, and infrastructure development. However, the level of producer support is smaller in the low-income rice-importing Asian countries than in the high-income East Asian countries, the EC, or the U.S.

In contrast to the rice-importing Asian countries, exporting Asian countries normally tax producers. Government control of trade and domestic procurement establishes producer prices below border levels in Pakistan, India, Burma, and China. However, Thailand eliminated its rice export tax in 1986.

These countries are low-cost rice producers with the potential to expand production. So they may attempt to get a larger share of an expanded world market if the industrial market economies reduce producer support. However, in China, India, Pakistan, and Burma, government policies prevent world prices from being transmitted to producers. So, it is not clear to what extent these countries would respond to higher world prices generated by a GATT-sponsored freer trading environment.

Trade Liberalization Would Increase World Prices

Opening the Japanese market would have the greatest impact on world prices, substantially driving up the price of japonica rice in the short run. This would occur even if the Japanese market were only partially opened.

California, Australia, and Italy could supply up to 20 percent, or about 2 million tons, of Japan's rice needs in the short run, assuming Japan outbids virtually all other importers and some U.S. domestic users. Of these three producing areas, only California could substantially expand its output.

Whether other japonica producers with the potential to expand, such as China and Brazil, could supply any of Japan's needs is debatable; their rice is often of inferior quality, and a large share of their production goes to domestic demand. In the U.S., growers in the Delta States could produce a high-quality japonica rice, but only with new technology.

The second driving force under liberalization would be how developed countries' producers respond to the elimination of government support. U.S. producers in total likely would decrease production and trade, because of lower incentive prices and more exposure to international market forces. However, reflecting the slower producer responses in developing countries, the U.S. likely would retain much of its export market for the first 5-7 years following liberalization.

Without border protection and export subsidies, the EC would produce less, export less, and import more. Higher

Sources of Assistance to Rice Producers*

Policy	Australia	EC	Japan	United States	Taiwan	South Korea
	Percent					
Price/income support	90	99	86	87	93	92
Input subsidies	1	0	14	8	1	0
Marketing	1	0	3	0	0	0
Long-term	7	1	0	5	6	7
Other	2	0	0	0	0	2

*1982-86 average. Totals may not sum to 100 percent because of rounding.

Price/income support: Tariffs, state marketing control, price stabilization, minimum support prices, deficiency payments, income guarantees, crop insurance subsidies, non-input tax subsidies, import levies.

Input subsidies: Fertilizer, pesticide, fuel, water, and labor subsidies, tax concessions, and interest and other credit subsidies.

Marketing subsidies: Processing, transportation, inspection, and sales promotion subsidies, and marketing credits.

Long term: Research and extension outlays, structural development projects.

Other: Rural adjustment scheme (Australia), current expenditure (South Korea)

Source: USDA-ERS, Estimates of Producer and Consumer Subsidy Equivalents, April 1988.

Although a net rice importer, the EC uses a combination of variable import levies and export subsidies to protect domestic producers. The U.S. is the only significant rice exporter to rely primarily on direct payments to support producers; in addition, the U.S. subsidizes exports. Australia exports most of its rice, but provides only a small level of producer assistance.

In general, price and income supports account for over 85 percent of assistance to rice producers in the developed or high-income East Asian countries—Taiwan, South Korea,

world prices should more than mitigate much of the lost producer subsidies in Australia, and production could even increase.

With a larger world rice market, higher cost developing producers might cut production and import more. If adequate foreign sources were available, South Korea, Taiwan, Indonesia, Malaysia, the Philippines, and Sri Lanka could decide to produce less and import more, placing even more upward pressure on prices in the short run.

Developing Exporters Would Gain

Thailand, a virtual free trader, would gain from higher world rice prices. Removing U.S. export subsidies would allow Thailand to compete more effectively in several indica rice markets, most notably in Africa, Asia, and the Middle East. Thailand may be able to grow japonica rice with a large enough price incentive. Although the quality likely would not meet Japanese standards, Thailand may be able to meet some of the rest of the world's demand for japonica.

Higher world prices also could encourage Pakistan and perhaps Burma and Vietnam to expand exports, benefiting producers. Alternatively, these countries could raise taxes on current exports, benefiting local taxpayers. India, which currently taxes its rice producers, might respond to higher world prices by eliminating its controls on exports and becoming a regular exporter.

China would benefit from higher prices if the increases were transmitted to its producers. With such a large number of rice farmers, China's farm income would rise. China might elect to export more rice and import lower priced wheat.

In general, although consumers in developing exporter countries might experience slight declines in purchasing power caused by higher prices, producer and taxpayer gains from trade liberalization should outweigh consumer losses.

Consumers, Taxpayers Would Benefit In Japan, South Korea, Taiwan

Benefits to consumers and taxpayers would almost certainly exceed losses to producers in Japan, South Korea, and Taiwan if these countries opened their domestic markets to foreign suppliers. These countries are high-cost rice producers who would experience substantial gains in economic efficiency from transferring resources out of agriculture.

The experiences associated with World War II (blockade, destruction, and occupation) created a deep social need for rice self-sufficiency in these countries. In addition, their farm blocs are very powerful politically, while consumer lobbies are relatively new and less effective.

Some Rice-Importing Countries Would Import More

Although their net food import bill would increase, Indonesia, Malaysia, Sri Lanka, and the Philippines likely would be net gainers from trade liberalization if world prices were

Players in the World Rice Market

	Low-income developing	High-income developing	Developed
Import	Bangladesh Malaysia Sri Lanka Philippines Indonesia China 2/ Sub-Saharan Africa	Iran Iraq Hong Kong Kuwait Syria Saudi Arabia	EC 1/ Canada South Africa Western Europe
Export	Thailand Burma Pakistan China 2/	Argentina Uruguay	U.S. Australia EC 1/
Self-sufficient	India	Taiwan South Korea Brazil	Japan

1/ The EC is a net importer of rice. 2/ China is a net exporter of rice.

transmitted to domestic markets. Of the four, the Philippines would benefit most from higher producer prices, since the country has many rice farmers whose incomes would rise. In contrast, Malaysia, a more urban and industrial country, would benefit from imports that would still cost less than domestically grown rice. Taxpayers may also gain in Malaysia and Indonesia.

Especially in Indonesia and Malaysia, producing less high-cost rice would free resources to produce more lower cost farm products for export, including sugar, rattan, and teak.

Poorest Countries Could Experience Economic Losses

Higher world prices could hurt several low-income rice-importing countries. Although their producers would gain somewhat if higher world prices were transmitted, the losses to consumers would outweigh producers' gains. Especially hard hit would be the poorest developing countries—Bangladesh and most of Sub-Saharan Africa.

Food aid as donated commodities also likely would shrink because developed countries would have less surplus production. Guinea, Liberia, Madagascar, Sierra Leone, and Somalia have received significant amounts of U.S. rice as food aid. However, increased monetary aid could offset the drop in direct food donations, preventing a decline in living standards in the poorest countries.

California Growers Would Expand; U.S. Indica Producers Would Cut Output

Japonica producers in California probably would return virtually all idled acreage to production in the near term if Japan opened its market. Almost all of California's production likely would then be exported to Japan, supplying over 10 percent (at least 1 million tons) of Japan's rice needs.

The southernmost rice-growing region of the U.S., currently exporting about half of its output, could experience a sharp

How To Assist Trade Liberalization: "Tariffication"

"Tariffication"—replacing nontariff trade barriers with equivalent tariffs—has been proposed by the U.S. in current agricultural trade negotiations under the GATT.

The U.S. tariffication plan represents a first step in reducing barriers to free farm trade. The sheer variety and number of national protectionist measures that distort international agricultural trade have hampered past agricultural negotiations under the GATT.

Converting trade barriers such as quotas and variable levies into tariffs would provide more GATT discipline, and make trade barriers more visible, thus making it easier to phase down barriers multilaterally and equitably.

Price Gap Formula Used For Conversion to Tariffs

The traditional method for computing a tariff equivalent is the "price gap" calculation. The gap is the difference between a domestic price and a world price expressed as a percentage of the world price:

Tariff equivalent = $((\text{domestic price} - \text{world price}) / \text{world price}) * 100$.

This formula allows the effects of quantitative restrictions, including variable levies, to be measured and expressed as tariffs.

Economic theory holds that tariffs distort trade less than quantitative restrictions on imports. One of the principles of the GATT system is that only tariffs should be used to restrict trade. Other than for agricultural products, the use of quantitative restrictions is prohibited, with a few specific exceptions. Because nontariff barriers were not to be used in the GATT system when it was set up, GATT procedures make no provision for negotiating nontariff reductions.

contraction in exports unless growers cut production costs. Eliminating producer supports and export assistance could prompt higher cost producers in the region to stop producing rice.

Texas, whose share of U.S. rice output has been declining for a decade because of high water costs, would experience the sharpest production drop. Yet some rice likely would continue to be grown in Texas. Texas mills would still need Texas rice for some high-value-added brand-name products.

Arkansas, with much lower production costs, should remain a viable grower, supplying domestic needs and exporting some high-quality indica rice to the EC and the Middle East. Although Louisiana can grow japonica rice, its quality is below Japanese standards. Louisiana growers likely would supply japonica rice domestically, mostly for processed food and beer. Lower land values and high yields would allow Mississippi to continue some production, but its growers

Under the GATT, countries negotiated away their tariff protections over successive rounds of multilateral trade negotiations beginning in 1947. As they did so, they began to feel pressure to provide extra protection to sensitive sectors, both agricultural and nonagricultural. But tariffs bound under a GATT negotiation cannot be raised without providing compensation to trading partners. So, governments have tended to circumvent the GATT prohibition on tariff hikes by instituting nontariff barriers.

The proliferation of voluntary export restraints, export subsidies, and other measures, and their disruptive effect on world trade, eventually led countries to negotiate nontariff barriers through GATT. Attempts to negotiate on nontariff barriers were made in the Kennedy Round and again in the Tokyo Round, but with only limited success. Now, another major assault on nontariff barriers is underway.

U.S. and Japan Used Tariffication

There are some precedents for using tariffication to eliminate quantitative restrictions in agricultural trade. The U.S. and Japan, for example, recently agreed to replace Japan's import quota on beef with a bound tariff, and negotiated phased reductions in this tariff. The agreement contained provisions for emergency safeguards to protect against a flood of beef imports. The provisions were substantially in line with GATT rules on safeguards.

Tariffication allows agricultural trade to adjust to world market changes better than nontariff barriers do. It also has the political advantage of being consistent with the international framework that most of the countries involved have relied upon for the past 40 years.

Converting existing nontariff barriers to tariffs and negotiating their reduction could get the GATT trade liberalization process through a difficult phase and bring major agricultural traders closer to free trade. [Mary Madell and Walt Gardiner (202) 786-1610]

likely would experience lower net returns after trade liberalization.

Although U.S. rice growers are not expected to benefit from trade liberalization in total, the national gains are significant. The primary benefit on a national level would be the shift of resources in Southern rice-producing States to higher value agricultural uses.

Soybean production might replace some rice farming in Mississippi, and grazing could replace some in Texas. In addition, U.S. taxpayers would save at least \$500 million per year in deficiency payments to rice producers.

Some of the savings could be used to support rice farmers' incomes in ways that do not distort trade. Also, U.S. trade policy officials have stressed that any U.S. actions to liberalize trade must be matched by similar actions in other countries. [Nathan Childs (202) 786-1840]

Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1988		1989					1990	
	IV	Annual	I	II	III	IV	Annual	I	Annual
Prices received by farmers (1977=100)	144	138	149	141	137	--	140	--	--
Livestock & Products	152	150	159	154	151	--	154	--	--
Crops	135	126	138	135	134	--	133	--	--
Prices paid by farmers, (1977=100)									
Production items	162	157	163	162	--	--	168	--	--
Commodities & services, interest, taxes, & wages	173	170	175	177	--	--	180	--	--
Cash receipts (\$ bil.) 1/									
Livestock (\$ bil.)	152	151	153	170	170	--	156-163	--	--
Crops (\$ bil.)	80	79	83	81	79	--	79-82	--	--
	72	73	70	89	91	--	72-76	--	--
Market basket (1982-84=100)									
Retail cost	118	116	123	125	--	--	--	--	--
Farm value	100	100	107	108	--	--	--	--	--
Spread	128	124	131	133	--	--	--	--	--
Farm value/retail cost (%)	30	30	30	30	--	--	--	--	--
Retail prices (1982-84=100)									
Food	120	118	123	125	125	125	125	--	--
At home	119	117	122	124	124	124	124	--	--
Away from home	123	122	125	127	128	129	127	--	--
Agricultural exports (\$ bil.) 2/	10.3	35.3	10.9	9.5	8.3	9.5	39.0	--	--
Agricultural imports (\$ bil.) 2/	5.2	21.0	5.8	5.3	4.7	5.2	21.0	--	--
Commercial production									
Red meat (mil. lb.)	10,269	39,763	9,594	9,871	9,870	9,978	39,313	9,600	39,215
Poultry (mil. lb.)	5,180	20,587	5,070	5,527	5,635	5,580	21,812	5,510	23,425
Eggs (mil. doz.)	1,446	5,771	1,391	1,394	1,405	1,460	5,650	1,415	5,770
Milk (bil. lb.)	35.4	145.5	36.6	38.0	36.6	35.9	147.5	37.5	152.0
Consumption, per capita									
Red meat and poultry (lb.)	56.3	218.9	52.5	54.3	54.9	57.2	218.9	52.5	222.4
Corn beginning stocks (mil. bu.) 3/	4,259.1	4,881.7	7,071.6	5,203.9	3,419.0	--	4,259.1	--	--
Corn use (mil. bu.) 3/	2,109.4	7,698.7	1,868.5	1,787.0	--	--	--	--	--
Prices 4/									
Choice steers--Omaha (\$/cwt)	70.14	69.54	73.85	73.85	70.72	72.76	72.74	73.79	71.77
Barrows & gilts--7 mths. (\$/cwt)	38.66	43.39	40.78	41.84	44.46	37.41	41.43	37.43	40.46
Broilers--12-city (cts./lb.)	57.9	56.3	59.4	67.1	60.62	54.58	60.62	50.56	49.55
Eggs--NY Gr. A large (cts./doz.)	67.3	62.1	78.6	75.2	80.82	68.72	75.77	65.71	62.68
Milk--all at plant (\$/cwt)	13.26	12.22	13.07	12.23	12.80-	13.50-	12.90-	13.10-	11.55-
					13.00	14.10	13.10	13.90	12.45
Wheat--Kansas City HRW (\$/bu.)	4.11	3.64	4.36	4.44	--	--	--	--	--
Corn--Chicago (\$/bu.)	2.75	2.46	2.75	2.76	--	--	--	--	--
Soybeans--Chicago (\$/bu.)	7.91	7.36	7.59	7.39	--	--	--	--	--
Cotton--Avg. spot mkt. (cts./lb.)	52.3	57.8	56.1	60.9	--	--	--	--	--
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
Gross cash income (\$ bil.)	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	170-175
Gross cash expenses (\$ bil.)	113.2	112.8	113.5	116.6	110.2	100.7	104.3	111.7	116-120
Net cash income (\$ bil.)	32.8	37.8	36.9	38.6	46.7	51.8	57.7	59.9	52-57
Net farm income (\$ bil.)	26.9	23.5	12.7	32.2	32.4	38.0	47.1	45.7	48-53
Farm real estate values 5/									
Nominal (\$ per acre)	819	823	788	782	679	595	547	564	597
Real (1977 \$)	551	513	472	448	376	322	290	288	291

1/ quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated.
 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages. 5/ 1981 & 1986-89 values as of February 1. 1982-85 values as of April 1.
 F = forecast. -- = not available.

U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1988			1989	
	1986 R	1987 R	1988 R	II R	III R	IV R	I R	II P
	\$ billion (quarterly data seasonally adjusted at annual rates)							
Gross national product	4,243.6	4,524.3	4,880.6	4,838.5	4,926.9	5,017.3	5,113.1	5,194.9
Personal consumption expenditures	2,797.4	3,010.8	3,235.1	3,204.9	3,263.4	3,324.0	3,381.4	3,437.9
Durable goods	406.0	421.0	455.2	454.6	452.5	467.4	466.4	470.3
Nondurable goods	942.0	998.1	1,052.3	1,042.4	1,066.2	1,078.4	1,098.3	1,116.6
Clothing & shoes	166.8	177.2	186.8	183.6	188.9	193.9	195.0	198.5
Food & beverages	500.0	529.2	559.7	554.5	567.8	574.1	587.3	588.6
Services	1,449.5	1,591.7	1,727.6	1,707.9	1,744.7	1,778.2	1,816.7	1,851.0
Gross private domestic investment	659.4	699.9	750.3	748.4	771.1	752.8	769.6	777.9
Fixed investment	652.5	670.6	719.6	719.1	726.5	734.1	742.0	745.5
Change in business inventories	6.9	29.3	30.6	29.3	44.6	18.7	27.7	32.4
Net exports of goods & services	-97.4	-112.6	-73.7	-74.9	-66.2	-70.8	-54.0	-52.4
Government purchases of goods & services	872.2	926.1	968.9	960.1	958.6	1,011.4	1,016.0	1,031.4
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	3,717.9	3,853.7	4,024.4	4,010.7	4,042.7	4,069.4	4,106.8	4,123.9
Personal consumption expenditures	2,446.4	2,513.7	2,598.4	2,586.8	2,608.1	2,627.7	2,641.0	2,648.2
Durable goods	384.4	389.6	413.6	414.8	410.7	420.5	419.3	423.8
Nondurable goods	878.1	890.4	904.5	899.2	910.3	912.0	915.0	905.8
Clothing & shoes	157.4	159.6	161.3	157.1	164.1	164.6	165.0	165.5
Food & beverages	447.1	452.7	460.0	459.8	461.9	462.1	466.0	458.6
Services	1,183.8	1,233.7	1,280.2	1,272.8	1,287.0	1,295.2	1,306.7	1,318.5
Gross private domestic investment	639.6	674.0	715.8	713.5	733.6	709.1	721.1	720.7
Fixed investment	634.1	650.3	687.9	692.0	696.1	690.8	696.6	698.8
Change in business inventories	5.6	23.7	27.9	21.5	37.5	18.3	24.5	22.0
Net exports of goods & services	-129.7	-115.7	-74.9	-72.6	-74.9	-73.8	-55.0	-52.6
Government purchases of goods & services	761.6	781.8	785.1	783.0	775.9	806.4	799.7	807.6
GNP implicit price deflator (% change)	2.6	3.2	3.3	4.8	4.4	4.7	4.0	4.9
Disposable personal income (\$ bil.)	3,013.3	3,205.9	3,477.8	3,435.9	3,511.7	3,587.4	3,689.5	3,744.5
Disposable per. income (1982 \$ bil.)	2,635.3	2,676.6	2,793.2	2,773.3	2,806.4	2,835.9	2,881.7	2,884.4
Per capita disposable per. income (\$)	12,469	13,140	14,116	13,966	14,235	14,504	14,884	15,071
Per capita dis. per. income (1982 \$)	10,905	10,970	11,337	11,273	11,377	11,466	11,625	11,609
U.S. population, total, incl. military abroad (mil.)	241.6	243.9	246.4	246.0	246.7	247.3	247.9	248.4
Civilian population (mil.)	239.4	241.7	244.1	243.8	244.5	245.1	245.7	246.1
	Annual			1988			1989	
	1986	1987	1988	June	Mar	Apr	May	June P
Monthly data seasonally adjusted								
Industrial production (1977=100)	125.1	129.8	137.2	136.5	140.7	141.6	141.4	141.1
Leading economic indicators (1982=100)	132.1	139.6	142.5	143.9	144.6	145.6	143.7	143.5
Civilian employment (mil. persons)	109.6	112.4	115.0	115.0	117.1	117.1	117.2	117.5
Civilian unemployment rate (%)	7.0	6.2	5.5	5.4	5.0	5.3	5.2	5.3
Personal income (\$ bil. annual rate)	3,526.2	3,777.6	4,064.5	4,049.4	4,360.7	4,386.5	4,394.7	4,407.3
Money stock-M2 (daily avg.) (\$ bil.) 1/	2,811.2	2,909.9	3,069.4	3,013.1	3,078.7	3,081.3	3,072.9	3,090.0
Three-month Treasury bill rate (%)	5.98	5.82	6.69	6.50	8.83	8.70	8.40	8.22
AAA corporate bond yield (Moody's) (%)	9.02	9.38	9.71	9.86	9.80	9.79	9.57	9.10
Housing starts (1,000) 2/	1,805	1,621	1,488	1,463	1,409	1,343	1,309	1,400
Auto sales at retail, total (mil.)	11.4	10.3	10.6	10.9	9.7	10.8	10.3	9.8
Business inventory/sales ratio	1.55	1.51	1.50	1.49	1.51	1.49	1.50	--
Sales of all retail stores (\$ bil.)	121.2	125.5	134.4	135.2	139.5	141.4	141.3 P	140.8
Nondurable goods stores (\$ bil.)	73.9	76.9	83.6	82.8	86.6	87.5	87.6 P	87.8
Food stores (\$ bil.)	24.6	25.3	27.6	27.5	29.0	29.2	29.3 P	29.1
Eating & drinking places (\$ bil.)	12.1	12.7	13.1	13.0	13.6	13.6	13.5 P	13.5
Apparel & accessory stores (\$ bil.)	6.7	7.1	7.0	6.7	7.0	7.2	7.2 P	7.4

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary. -- = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 3.—Foreign Economic Growth, Inflation, & Export Earnings

	Average 1975-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 P	1990 F
Annual percent change												
Total foreign												
Real GNP	3.7	2.6	1.6	1.7	2.0	3.2	3.0	2.8	3.1	4.0	3.3	2.9
CPI	14.0	17.1	15.8	14.7	18.8	22.8	22.1	11.8	16.6	34.4	70.9	58.8
Export earnings	14.6	22.2	-2.7	-7.0	-2.6	5.6	1.9	11.0	18.6	13.4	9.8	9.3
Developed less U.S.												
Real GNP	3.1	2.4	1.4	1.1	1.9	3.4	3.3	2.4	3.1	4.0	3.5	2.6
CPI	9.4	10.9	9.6	8.0	6.0	5.1	4.7	2.8	2.6	2.9	4.2	3.6
Export earnings	14.9	17.0	-3.3	-4.3	-0.5	6.3	4.6	19.4	17.6	12.5	11.0	9.1
Centrally planned												
Real GNP	3.5	1.5	2.1	2.7	2.7	1.9	1.3	3.2	1.4	3.3	2.5	2.6
Export earnings	16.1	16.5	3.4	6.0	8.2	1.5	-5.1	7.3	6.7	5.2	5.6	8.1
Latin America												
Real GNP	-5.1	-5.4	-0.9	-0.5	-3.2	-3.5	3.7	4.1	-3.0	0.1	-1.3	-2.1
CPI	53.7	64.0	67.9	75.1	130.0	177.9	184.9	88.9	140.5	318.0	700.8	578.8
Export earnings	12.8	30.1	5.3	-10.1	-0.8	6.7	-7.3	-14.6	9.2	16.5	3.0	1.2
Africa & Middle East												
Real GNP	6.4	1.3	0.0	1.4	0.1	1.1	0.0	-1.2	1.4	3.4	3.6	3.3
CPI	16.4	24.6	17.3	12.9	16.7	19.4	11.2	11.7	13.3	23.7	20.7	17.4
Export earnings	13.2	37.9	-9.2	-19.7	-17.5	-6.1	-4.6	-20.8	19.2	4.0	4.3	4.8
Asia												
Real GNP	6.8	6.3	6.6	3.6	6.6	5.4	4.0	5.8	6.7	8.2	6.6	5.6
CPI	8.4	14.2	14.1	7.3	7.7	8.5	5.2	4.5	5.5	6.7	7.9	7.9
Export earnings	18.6	27.8	6.8	-0.3	3.4	13.1	-0.8	6.0	28.1	25.4	12.4	11.5

P = preliminary. F = forecast.

Information contact: Timothy Baxter (202) 786-1706.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1988 July	1989					
	1986	1987	1988		Feb	Mar	Apr	May	June R	July P
1977=100										
Prices received										
All farm products	123	126	138	142	148	149	147	149	147	146
All crops	107	106	126	137	138	136	140	141	138	134
Food grains	109	103	137	144	161	162	161	160	154	152
Feed grains & hay	98	85	120	142	137	138	139	138	131	125
Feed grains	96	81	117	141	132	132	131	130	125	121
Cotton	91	99	95	98	88	93	97	97	97	103
Tobacco	138	129	132	126	143	143	144	144	144	144
Oil-bearing crops	77	79	108	124	112	112	110	109	107	103
Fruit, all	169	181	181	194	176	158	166	201	197	157
Fresh market 1/	177	194	194	210	188	166	176	216	212	164
Commercial vegetables	130	144	142	125	167	149	171	153	152	177
Fresh market	123	147	137	113	163	146	168	145	149	182
Potatoes & dry beans	114	126	124	142	171	194	208	223	211	229
Livestock & products	138	146	150	147	158	161	154	156	157	156
Meat animals	145	163	168	163	176	176	170	171	172	173
Dairy products	129	129	126	117	135	131	127	126	127	128
Poultry & eggs	128	107	118	136	128	150	139	147	144	138
Prices paid										
Commodities & services, interest, taxes, & wage rates	159	161	170	172	--	--	177	--	--	178
Production items	144	147	157	159	--	--	165	--	--	165
Feed	108	103	128	145	--	--	140	--	--	133
Feeder livestock	153	179	192	180	--	--	185	--	--	193
Seed	148	148	150	150	--	--	170	--	--	170
Fertilizer	124	118	130	132	--	--	141	--	--	141
Agricultural chemicals	127	124	126	128	--	--	133	--	--	133
Fuels & energy	162	161	163	169	--	--	185	--	--	188
Farm & motor supplies	144	145	148	147	--	--	155	--	--	155
Autos & trucks	198	208	215	216	--	--	226	--	--	225
Tractors & self-propelled machinery	174	174	181	179	--	--	192	--	--	192
Other machinery	182	185	197	199	--	--	209	--	--	209
Building & fencing	136	137	138	138	--	--	140	--	--	141
Farm services & cash rent	145	146	147	147	--	--	151	--	--	151
Interest payable per acre on farm real estate debt	211	190	186	186	--	--	190	--	--	190
Taxes payable per acre on farm real estate	138	139	142	142	--	--	144	--	--	144
Wage rates (seasonally adjusted)	160	167	172	177	--	--	186	--	--	186
Production items, interest, taxes, & wage rates	150	151	160	162	--	--	167	--	--	167
Ratio, prices received to prices paid (%)2/	77	79	82	83	85	85	83	84	83	82
Prices received (1910-14=100)	561	578	631	649	677	679	672	680	673	665
Prices paid, etc. (parity index) (1910-14=100)	1,093	1,110	1,167	1,180	--	--	1,220	--	--	1,226
Parity ratio (1910-14=100) (%)2/	51	52	54	55	--	--	55	--	--	54

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio derived using the most recent prices paid index. Prices paid data are quarterly and will be published in January, April, July, and October. P = preliminary. R = revised.

-- = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1988						
	1986	1987	1988	July	Feb	Mar	Apr	May	June R	July P
Crops										
All wheat (\$/bu.)	2.71	2.55	3.33	3.50	4.03	4.07	4.03	4.01	3.84	3.78
Rice, rough (\$/cwt)	5.04	4.59	7.79	7.94	6.59	6.47	6.66	6.76	6.94	6.86
Corn (\$/bu.)	1.96	1.56	2.27	2.72	2.58	2.59	2.56	2.58	2.52	2.43
Sorghum (\$/cwt)	3.11	2.56	3.66	4.56	4.05	4.03	4.16	4.02	3.90	4.01
All hay, baled (\$/ton)	61.64	62.42	78.17	82.30	93.70	98.10	104.00	104.00	94.80	85.40
Soybeans (\$/bu.)	5.00	5.08	7.21	8.50	7.41	7.51	7.29	7.21	7.06	6.75
Cotton, upland (cts./lb.)	54.8	59.6	57.2	59.5	52.9	56.3	58.9	58.8	58.8	62.5
Potatoes (\$/cwt)	5.03	4.35	5.49	5.25	6.42	7.45	8.15	8.94	8.45	9.27
Lettuce (\$/cwt)	11.90	14.70	15.20	7.32	12.60	13.60	9.07	7.48	13.50	15.40
Tomatoes (\$/cwt)	25.10	26.00	26.80	28.40	45.20	34.10	55.80	43.60	27.90	32.60
Onions (\$/cwt)	10.90	12.50	9.99	10.20	10.80	9.70	10.90	9.58	13.60	17.70
Dry edible beans (\$/cwt)	19.10	17.67	22.38	27.10	31.30	33.00	32.80	32.00	31.10	31.70
Apples for fresh use (cts./lb.)	19.8	17.6	16.7	15.8	18.1	16.1	14.6	14.1	10.8	9.8
Pears for fresh use (\$/ton)	369.00	227.00	347.00	365.00	292.00	328.00	290.00	448.00	493.00	480.00
Oranges, all uses (\$/box) 2/	4.27	5.03	6.56	6.41	6.21	5.27	6.64	8.52	8.10	5.04
Grapefruit, all uses (\$/box) 2/	4.29	4.96	5.39	4.85	3.34	3.36	3.28	4.05	4.85	4.62
Livestock										
Beef cattle (\$/cwt)	52.80	61.40	66.80	63.20	71.50	72.00	70.00	68.80	67.60	67.60
Calves (\$/cwt)	60.90	78.10	89.80	87.70	95.90	94.00	90.50	91.20	94.20	95.00
Hogs (\$/cwt)	50.10	50.80	42.50	44.10	40.40	39.30	36.90	41.60	45.10	46.00
Lambs (\$/cwt)	69.10	77.90	69.50	60.00	68.40	72.50	75.20	73.10	70.60	69.20
All milk, sold to plants (\$/cwt)	12.50	12.53	12.22	11.40	13.10	12.70	12.30	12.20	12.30	12.40
Milk, manuf. grade (\$/cwt)	11.46	11.37	11.15	10.40	11.60	11.30	11.20	11.20	11.30	11.40
Broilers (cts./lb.)	34.5	28.8	34.0	41.5	35.2	38.7	38.9	45.2	42.6	39.1
Eggs (cts./doz.) 3/	61.2	53.1	53.2	58.3	62.1	80.1	65.3	62.0	63.3	64.0
Turkeys (cts./lb.)	44.4	34.3	36.5	40.4	38.3	40.0	42.3	43.4	44.0	41.5
Wool (cts./lb.) 4/	64.3	87.1	138.0	134.0	123.0	130.0	135.0	139.0	139.0	120.0

1/ Calendar year averages, except for potatoes, dry edible beans, apples, oranges, & grapefruit, which are crop years.
 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail.
 4/ Average local market price, excluding incentive payments. P = preliminary. R = revised.

Information contact: Ann Duncan (202) 786-3313.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1988				1989				
	1988	June	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1982-84=100										
Consumer Price Index, all items	118.3	118.0	120.3	120.5	121.1	121.6	122.3	123.1	123.8	124.1
Consumer Price Index, less food	118.3	118.1	120.3	120.4	120.8	121.3	122.0	122.9	123.5	123.9
All food										
Food away from home	121.8	121.5	123.7	124.1	124.7	125.2	125.7	126.2	126.7	127.1
Food at home	116.6	115.8	118.7	119.1	121.2	122.0	122.7	123.5	124.4	124.3
Meats 1/	112.2	113.8	113.0	112.7	114.0	114.3	115.5	115.6	115.6	116.1
Beef & veal	112.1	114.1	114.7	114.6	116.0	116.6	119.0	119.0	119.6	119.3
Pork	112.5	114.6	110.0	109.6	111.5	110.9	111.0	111.2	110.1	111.8
Poultry	120.7	120.1	127.2	127.1	128.8	128.4	130.3	133.0	137.3	140.1
Fish	137.4	136.0	138.7	138.9	144.0	142.9	144.3	143.3	142.3	142.9
Eggs	93.6	83.6	101.2	99.6	112.0	106.1	122.9	117.6	112.6	110.6
Dairy products 2/	108.4	107.2	110.6	111.4	112.6	113.4	113.8	114.1	113.8	113.6
Fats & oils 3/	113.1	111.5	117.1	118.5	119.6	120.5	120.4	121.6	121.6	121.6
Fresh fruit	143.0	143.6	144.3	143.2	145.4	150.0	149.5	152.4	158.1	151.7
Processed fruit	122.0	123.5	125.0	124.4	125.6	125.5	124.7	124.6	125.1	125.6
Fresh vegetables	129.3	121.8	126.7	133.0	141.4	144.4	140.2	144.1	153.2	150.8
Potatoes	119.1	122.2	126.0	128.5	130.8	138.3	146.6	158.9	164.0	172.5
Processed vegetables	112.2	110.0	118.1	118.9	120.9	121.8	122.7	124.4	124.9	125.5
Cereals & bakery products	122.1	120.8	125.9	126.6	127.9	128.9	129.7	130.4	131.5	132.1
Sugar & sweets	114.0	113.3	115.9	116.7	117.2	117.8	118.0	117.9	118.1	119.2
Beverages, nonalcoholic	107.5	107.1	108.2	107.8	109.6	111.3	111.3	111.8	111.5	111.5
Apparel commodities less footwear										
Footwear	109.9	109.2	114.5	113.5	112.2	112.7	114.1	115.3	114.9	114.0
Tobacco & smoking products	145.8	143.6	149.7	149.9	157.0	158.5	159.2	159.5	161.1	164.2
Beverages, alcoholic	118.6	118.7	119.9	119.9	120.3	121.1	121.8	122.3	123.1	123.5

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 786-3313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1988	1989					
	1986	1987	1988	June	Jan	Feb R	Mar	Apr	May	June
	1982=100									
Finished goods 1/	103.2	105.4	108.0	107.7	111.1	111.7	112.2	113.0	114.2	114.1
Consumer foods	107.2	109.5	112.6	112.3	116.7	117.2	118.4	117.8	119.1	119.1
Fresh fruit	112.9	112.0	112.7	114.9	110.9	113.2	106.4	104.5	109.4	112.2
Fresh & dried vegetables	97.8	103.7	105.4	90.6	109.2	133.3	123.8	119.3	142.9	128.9
Dried fruit	91.9	95.0	99.1	99.3	101.1	101.0	103.0	102.9	102.3	102.8
Canned fruit & juice	111.0	115.3	120.1	119.9	122.5	121.9	122.1	122.0	122.0	122.7
Frozen fruit & juice	103.0	113.3	129.9	130.2	126.7	122.1	119.8	119.6	122.3	128.4
Fresh veg. excl. potatoes	99.3	99.0	100.4	86.6	93.4	119.9	111.0	107.1	140.4	117.0
Canned veg. & juices	101.2	103.5	108.3	103.1	118.7	118.4	120.3	119.4	119.7	119.0
Frozen vegetables	106.6	107.3	108.5	106.4	113.2	114.5	114.9	115.3	115.3	115.7
Potatoes	104.0	120.1	114.1	89.9	148.1	178.3	162.0	152.7	150.8	161.8
Eggs	99.5	87.6	88.6	77.1	127.3	96.7	135.8	110.8	107.0	104.8
Bakery products	116.6	118.4	126.4	125.6	132.0	133.1	133.0	133.7	134.4	134.9
Meats	93.9	100.4	99.9	104.4	102.8	102.8	103.7	103.2	103.5	103.4
Beef & veal	88.1	95.5	101.4	104.0	107.4	108.1	111.3	112.2	111.7	106.6
Pork	99.9	104.9	95.2	104.6	95.4	93.6	91.9	88.5	90.0	96.9
Processed poultry	116.7	103.4	111.4	112.3	116.3	116.3	123.9	125.1	132.2	130.6
Fish	124.9	140.0	151.7	147.9	151.6	152.7	161.4	158.3	157.5	139.1
Dairy products	99.9	101.6	102.2	100.6	107.1	106.5	106.3	105.5	105.7	106.4
Processed fruits & vegetables	104.9	108.6	113.8	111.6	119.0	118.8	119.4	119.1	119.9	120.7
Shortening & cooking oil	103.3	103.9	118.9	119.8	117.2	115.4	118.4	117.9	119.3	116.7
Consumer finished goods less foods	98.4	100.7	103.1	102.8	105.8	106.6	106.9	108.9	110.4	110.3
Beverages, alcoholic	110.1	110.3	111.9	111.8	112.2	113.9	115.0	115.5	116.5	116.8
Soft drinks	109.5	111.8	114.1	113.7	116.3	116.6	117.7	118.4	118.0	117.4
Apparel	106.3	108.3	111.7	111.7	113.7	114.1	113.8	114.0	114.2	114.1
Footwear	106.8	109.3	115.2	114.8	118.1	119.5	119.5	119.4	119.8	120.1
Tobacco products	142.4	154.6	171.9	166.8	187.2	187.3	187.4	187.4	187.4	196.8
Intermediate materials 2/	99.1	101.5	107.1	107.4	110.6	111.0	111.6	112.3	112.7	112.6
Materials for food manufacturing	98.4	100.8	106.0	106.9	110.4	110.1	111.4	111.5	112.4	112.1
Flour	94.5	92.9	105.7	110.3	114.8	114.1	116.1	113.7	115.9	116.5
Refined sugar 3/	103.2	106.4	108.6	106.9	115.8	115.8	116.1	116.1	117.0	116.9
Crude vegetable oils	84.8	84.2	116.8	124.1	108.9	103.7	109.9	107.4	114.7	103.1
Crude materials 4/	87.7	93.7	96.0	97.9	101.4	101.2	103.1	104.1	106.3	103.9
Foodstuffs & feedstuffs	93.2	96.2	106.0	108.6	112.5	111.0	113.7	111.4	115.0	111.4
Fruits & vegetables 5/	103.9	106.8	108.1	100.8	109.4	123.8	115.6	112.3	127.5	121.0
Grains	79.2	71.1	97.9	103.4	115.2	111.3	115.1	109.8	114.1	105.8
Livestock	91.8	102.0	103.0	106.1	104.5	104.6	106.2	105.9	106.9	105.5
Poultry, live	129.6	101.2	121.5	130.4	122.4	121.5	138.5	138.4	155.0	148.5
Fibers, plant & animal	88.3	106.4	98.4	107.6	95.8	94.8	98.4	105.0	108.1	110.5
Fluid milk	90.9	91.8	89.1	83.8	96.4	94.7	92.3	90.0	89.7	90.3
Oilseeds	91.4	99.2	134.0	153.8	143.6	133.2	140.0	130.7	137.5	127.5
Tobacco, leaf	89.7	85.7	87.2	82.0	94.4	93.1	93.1	93.1	93.7	93.7
Sugar, raw cane	104.9	110.2	111.9	112.7	111.0	111.9	112.3	112.3	113.8	115.4
All commodities	100.1	102.8	106.9	107.2	110.5	110.8	111.5	112.3	113.1	112.8
Industrial commodities	99.9	102.5	106.3	106.4	109.6	110.1	110.6	111.7	112.4	112.3
All foods 6/	105.5	107.8	111.5	111.4	115.7	116.2	117.5	116.8	118.4	117.4
Farm products & processed foods & feeds	101.2	103.7	110.0	111.2	115.0	114.6	116.2	115.1	116.9	115.2
Farm products	92.9	95.5	104.8	106.8	112.0	110.8	113.4	110.5	114.9	111.4
Processed foods & feeds 6/	105.4	107.9	112.8	113.5	116.6	116.6	117.8	117.5	118.1	117.3
Cereal & bakery products	111.0	112.6	122.9	123.2	128.2	129.0	129.1	129.3	130.8	130.8
Sugar & confectionery	109.6	112.6	114.6	113.6	117.8	118.3	118.7	120.0	119.6	120.6
Beverages	114.5	112.5	114.3	114.1	116.5	117.7	118.7	119.4	119.5	119.6

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Ann Duncan (202) 786-3313.

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual				1988		1989					
	1985	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June	June
Market basket 1/												
Retail cost (1982-84=100)	104.1	106.3	111.6	116.5	115.5	121.5	122.3	122.9	123.6	124.7	124.7	
Farm value (1982-84=100)	96.2	94.9	97.1	100.3	100.9	105.6	106.4	107.2	106.6	108.7	106.9	
Farm-retail spread (1982-84=100)	108.3	112.5	119.4	125.3	123.4	130.0	130.8	131.4	132.7	133.3	134.3	
Farm value-retail cost (%)	32.4	31.2	30.5	30.1	30.6	30.5	30.5	30.5	30.2	30.5	30.0	
Meat products												
Retail cost (1982-84=100)	98.9	102.0	109.6	112.2	113.8	114.0	114.3	115.5	115.6	115.6	116.1	
Farm value (1982-84=100)	91.3	94.3	101.2	99.5	108.3	102.7	102.6	103.7	103.4	103.2	103.6	
Farm-retail spread (1982-84=100)	106.7	109.8	118.3	125.2	119.4	125.6	126.3	127.6	128.1	128.3	128.9	
Farm value-retail cost (%)	46.8	46.8	46.7	44.9	48.2	45.6	45.5	45.5	45.3	45.2	45.2	
Dairy products												
Retail cost (1982-84=100)	103.2	103.3	105.9	108.4	107.2	112.6	113.4	113.8	114.1	113.8	113.6	
Farm value (1982-84=100)	95.2	92.6	93.3	90.4	86.3	97.9	97.7	94.3	93.0	91.7	91.7	
Farm-retail spread (1982-84=100)	110.5	113.3	117.5	124.9	126.4	126.1	127.9	131.7	133.5	134.2	133.8	
Farm value-retail cost (%)	44.2	43.0	42.3	40.0	38.6	41.7	41.3	39.8	39.1	38.6	38.7	
Poultry												
Retail cost (1982-84=100)	106.2	114.2	112.6	120.7	120.1	128.8	128.4	130.3	133.0	137.3	140.1	
Farm value (1982-84=100)	105.9	115.1	93.8	110.4	114.8	112.8	113.9	124.3	125.9	143.5	136.8	
Farm-retail spread (1982-84=100)	106.6	113.3	134.2	132.6	126.2	147.2	145.1	137.3	141.2	130.1	143.9	
Farm value-retail cost (%)	53.3	53.9	44.6	49.0	51.2	46.9	47.5	51.0	50.7	55.9	52.2	
Eggs												
Retail cost (1982-84=100)	91.0	97.2	91.5	93.6	83.6	112.0	106.1	122.9	117.6	112.6	110.6	
Farm value (1982-84=100)	85.7	92.4	76.8	76.7	62.7	96.6	92.3	128.0	99.8	93.3	95.5	
Farm-retail spread (1982-84=100)	100.4	106.0	117.9	123.9	121.1	139.7	130.9	113.7	149.5	147.2	137.7	
Farm value-retail cost (%)	60.5	61.0	53.9	52.7	48.2	55.4	55.9	66.9	54.5	53.2	55.5	
Cereal & bakery products												
Retail cost (1982-84=100)	107.9	110.9	114.8	122.1	120.8	127.9	128.9	129.7	130.4	131.5	132.1	
Farm value (1982-84=100)	94.3	76.3	71.0	92.3	94.6	102.0	101.0	103.1	103.3	104.3	102.2	
Farm-retail spread (1982-84=100)	109.8	115.7	120.9	126.3	124.5	131.5	132.8	133.4	134.2	135.3	136.3	
Farm value-retail cost (%)	10.7	8.4	7.6	9.3	9.6	9.8	9.6	9.7	9.7	9.7	9.5	
Fresh fruits												
Retail cost (1982-84=100)	118.4	120.4	135.6	145.4	142.2	150.1	154.3	151.6	151.0	157.3	152.6	
Farm value (1982-84=100)	110.8	103.8	113.9	113.3	99.4	105.0	101.5	92.3	82.8	94.9	94.4	
Farm-retail spread (1982-84=100)	121.8	128.0	145.7	160.2	162.0	170.9	178.7	179.0	182.5	186.1	179.5	
Farm value-retail cost (%)	29.6	27.4	26.5	24.6	22.1	22.1	20.8	19.2	17.3	19.1	19.5	
Fresh vegetables												
Retail costs (1982-84=100)	103.5	107.7	121.6	129.3	121.8	141.4	144.4	140.2	144.1	153.2	150.8	
Farm value (1982-84=100)	93.1	90.0	112.0	105.8	89.7	120.4	144.5	120.1	142.7	153.4	134.3	
Farm-retail spread (1982-84=100)	108.9	116.8	126.5	141.3	138.3	152.2	144.3	150.5	144.8	153.1	159.3	
Farm value-retail cost (%)	30.5	28.4	31.3	27.8	25.0	28.9	34.0	29.1	33.6	34.0	30.2	
Processed fruits & vegetables												
Retail cost (1982-84=100)	107.0	105.3	109.0	117.6	117.6	123.4	123.7	123.7	124.3	124.9	125.4	
Farm value (1982-84=100)	117.7	101.5	111.1	136.5	135.6	138.4	135.4	134.4	132.9	132.8	133.0	
Farm-retail spread (1982-84=100)	103.7	106.4	108.3	111.7	112.0	118.7	120.0	120.4	121.6	122.4	123.0	
Farm value-retail costs (%)	26.2	22.9	24.2	27.6	27.4	26.7	26.0	25.8	25.4	25.3	25.2	
Fats & oils												
Retail cost (1982-84=100)	108.9	106.5	108.1	113.1	111.5	119.6	120.5	120.4	121.6	121.6	121.6	
Farm value (1982-84=100)	104.3	76.2	74.1	103.3	106.3	98.9	99.2	103.1	105.4	104.6	98.5	
Farm-retail spread (1982-84=100)	110.6	117.6	120.6	116.7	113.4	127.2	128.3	126.8	127.6	127.8	130.1	
Farm value-retail cost (%)	25.8	19.2	18.6	24.6	25.7	22.2	22.2	23.0	23.3	23.1	21.8	

	Annual				1988		1989					
	1985	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June	June
Beef, Choice												
Retail price 2/ (cts./lb.)	232.6	230.7	242.5	254.7	259.9	264.3	265.2	269.5	269.8	271.9	268.1	
Net carcass value 3/ (csts.)	135.2	133.1	145.3	153.9	158.2	159.8	160.9	167.4	169.5	167.7	158.5	
Net farm value 4/ (csts.)	126.8	124.4	137.9	147.4	148.1	155.8	157.6	163.9	164.3	160.9	152.5	
Farm-retail spread (csts.)	105.8	106.3	104.6	107.3	111.8	108.5	107.6	105.6	105.5	111.0	115.6	
Carcass-retail spread 5/ (csts.)	97.4	97.6	97.2	100.8	101.6	104.5	104.3	102.1	100.3	104.2	109.6	
Farm-carcass spread 6/ (csts.)	8.4	8.7	7.4	6.5	10.1	4.0	3.3	3.5	5.2	6.8	6.0	
Farm value-retail price (%)	55	54	57	58	57	59	59	61	61	59	57	
Pork												
Retail price 2/ (csts./lb.)	162.0	178.4	188.4	183.4	187.9	181.1	179.3	179.7	179.5	177.1	179.1	
Wholesale value 3/ (csts.)	101.1	110.9	113.0	101.0	106.3	94.3	92.7	91.8	88.6	95.5	99.6	
Net farm value 4/ (csts.)	71.4	82.4	82.7	69.4	76.8	66.7	65.2	63.3	59.0	68.4	74.0	
Farm-retail spread (csts.)	90.6	96.0	105.7	114.0	111.1	114.4	114.1	116.4	120.5	108.7	105.1	
Wholesale-retail spread 5/ (csts.)	60.9	67.5	75.4	82.4	81.6	86.8	86.6	87.9	90.9	81.6	79.5	
Farm-wholesale spread 6/ (csts.)	29.7	28.5	30.3	31.6	29.5	27.6	27.5	28.5	29.6	27.1	25.6	
Farm value-retail price (%)	44	46	44	38	41	37	36	35	33	39	41	

1/ Retail costs are based on indexes of retail prices for domestically produced farm foods from the CPI-U published monthly by the Bureau of Labor Statistics. The farm value is the payment to farmers for quantity of farm product equivalent to retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing these foods. 2/ Estimated weighted average price of retail cuts from pork & choice yield grade 3 beef carcasses. Retail cut prices from BLS. 3/ Value of carcass quantity (beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat & bone byproducts. 4/ Market value to producer for quantity of live animal equivalent to 1 lb. of retail cuts minus value of byproducts. 5/ Represents charges for retailing & other marketing services such as fabricating, wholesaling, in-city transportation. 6/ Represents charges made for livestock marketing, processing, & transportation to city where consumed.

Information contacts: Denis Dunham (202) 786-1870, Ron Gustafson (202) 786-1286.

Table 9.—Price Indexes of Food Marketing Costs

	Annual			1988				1989	
	1986	1987	1988	I	II	III	IV	I	II P
	1967=100*								
Labor—hourly earnings & benefits	359.4	361.1	368.7	366.5	367.9	367.3	372.4	376.2	377.1
Processing	363.4	370.2	379.7	377.8	380.9	379.2	381.5	387.4	389.2
Wholesaling	376.3	384.2	394.3	390.6	392.0	395.1	400.2	405.6	407.8
Retailing	347.9	341.7	346.6	344.5	344.2	343.2	351.1	351.9	351.4
Packaging & containers	317.4	329.8	350.7	341.0	347.8	355.6	358.4	362.4	364.7
Paperboard boxes & containers	269.1	288.0	308.1	299.1	307.1	311.4	314.6	319.1	323.2
Metal cans	430.1	433.0	442.3	443.9	443.9	443.3	438.1	438.1	438.1
Paper bags & related products	307.9	331.3	372.2	351.1	359.9	382.2	395.7	408.3	411.5
Plastic films & bottles	274.8	280.2	305.7	288.3	302.4	315.0	317.0	318.8	316.1
Glass containers	398.0	402.0	398.9	400.0	398.7	398.6	398.2	401.2	413.1
Metal foil	209.3	222.1	266.9	249.0	256.9	277.5	284.1	282.9	278.0
Transportation services	391.7	385.0	403.5	399.6	405.2	404.5	404.8	403.2	403.5
Advertising	339.7	361.1	384.6	377.9	382.8	386.6	391.2	403.8	406.4
Fuel & power	590.2	596.7	578.2	575.7	585.1	580.9	571.1	601.1	614.8
Electric	457.9	450.5	453.3	440.3	446.8	474.9	451.3	451.3	466.1
Petroleum	499.8	561.4	502.0	526.7	534.0	472.4	474.7	560.5	583.4
Natural gas	1,096.9	1,049.0	1,042.1	1,021.3	1,042.7	1,049.1	1,055.3	1,073.1	1,068.6
Communications, water & sewage	236.1	238.4	241.3	239.9	241.0	241.3	243.0	244.5	247.0
Rent	274.4	269.6	272.6	270.1	270.4	272.0	278.0	277.4	277.1
Maintenance & repair	368.5	382.6	395.9	391.2	395.3	397.5	399.7	404.8	408.9
Business services	331.3	349.0	364.6	358.7	362.6	366.2	371.0	375.5	379.3
Supplies	282.8	286.8	305.6	294.9	302.2	310.2	315.2	321.3	323.9
Property taxes & insurance	382.3	399.6	419.9	412.8	416.2	422.5	428.3	431.4	435.6
Interest, short-term	125.1	132.9	150.3	131.4	142.0	159.8	168.0	184.9	181.9
Total marketing cost index	354.9	360.4	371.7	367.0	370.9	372.7	376.1	381.2	383.3

* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denis Dunham (202) 786-1870.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Pro- duc- tion 1/	Im- ports	Total supply	Ex- ports	Ship- ments	Ending stocks	Consumption		Primary market price 3/
								Total	Per capita 2/ Pounds	
Million pounds 4/										
Beef										
1986	420	24,371	2,129	26,919	521	52	412	25,935	78.4	57.75
1987	412	23,566	2,269	26,247	604	52	386	25,205	73.4	64.60
1988	386	23,589	2,379	26,354	680	64	422	25,188	72.1	69.54
1989 F	422	22,871	2,200	25,493	885	60	325	24,223	68.7	72-74
Pork										
1986	289	14,063	1,122	15,474	86	132	248	15,008	58.6	51.19
1987	248	14,374	1,195	15,817	109	124	347	15,237	59.1	51.69
1988	347	15,684	1,137	17,168	195	126	413	16,434	63.1	43.39
1989 F	413	15,976	1,000	17,389	200	140	370	16,679	63.6	41-43
Veal 5/										
1986	11	524	27	562	5	1	7	550	1.9	60.89
1987	7	429	24	460	7	1	4	449	1.5	78.05
1988	4	396	27	427	10	2	5	410	1.4	89.79
1989 F	5	370	0	375	0	1	4	370	1.2	92-94
Lamb & mutton										
1986	13	338	41	392	2	2	13	375	1.4	70.26
1987	13	315	44	372	2	2	8	360	1.3	78.09
1988	8	335	51	394	1	1	6	386	1.4	68.84
1989 F	6	337	53	396	1	0	7	388	1.4	66-68
Total red meat										
1986	733	39,296	3,319	43,348	613	187	680	41,868	140.2	--
1987	679	38,684	3,533	42,897	722	179	744	41,251	135.3	--
1988	745	40,004	3,594	44,343	886	193	846	42,418	137.9	--
1989 F	846	39,554	3,253	43,653	1,086	201	706	41,660	134.9	--
Broilers										
1986	27	14,316	0	14,342	566	149	24	13,603	56.3	56.9
1987	24	15,594	0	15,618	752	151	25	14,691	60.2	47.4
1988	25	16,180	0	16,205	765	151	36	15,253	61.9	56.3
1989 F	36	17,237	0	17,273	880	140	30	16,223	65.2	60-62
Mature chicken										
1986	144	627	0	771	16	3	163	589	2.4	--
1987	163	650	0	814	15	2	188	608	2.5	--
1988	188	638	0	826	26	3	157	641	2.6	--
1989 F	157	622	0	778	22	4	150	602	2.4	--
Turkeys										
1986	150	3,271	0	3,422	27	4	178	3,212	13.3	72.2
1987	178	3,828	0	4,006	33	4	282	3,686	15.1	57.8
1988	282	3,968	0	4,250	51	2	250	3,948	16.0	61.3
1989 F	250	4,151	0	4,401	38	4	290	4,069	16.4	66-68
Total poultry										
1986	321	18,215	0	18,535	609	156	365	17,405	72.0	--
1987	365	20,072	0	20,437	800	157	495	18,985	77.8	--
1988	495	20,786	0	21,281	843	156	442	19,841	80.5	--
1989 F	442	22,011	0	22,453	940	148	470	20,895	84.0	--
Red meat & poultry										
1986	1,054	57,511	3,319	61,883	1,223	343	1,045	59,273	212.3	--
1987	1,044	58,756	3,532	63,333	1,521	336	1,240	60,229	213.2	--
1988	1,240	60,790	3,594	65,624	1,729	356	1,288	62,251	218.4	--
1989 F	1,288	61,565	3,253	66,106	2,026	349	1,176	62,555	218.9	--

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry.
 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .74 during 1962-85. It was lowered to .73 for 1986, .71 for 1987, & 70.5 for 1988 & 89.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. -- = not available.

Information contacts: Ron Gustafson, Leland Southard, or Mark Weimar (202) 786-1285.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro-duction	Im-ports	Total supply	Ex-ports	Ship-ments	Hatch-ing use	Ending stocks	Consumption		Wholesale price*
									Total	Per capita	
									No.	Cts./doz.	
Million dozen											
1984	9.3	5,708.3	32.0	5,749.7	58.2	27.8	529.7	11.1	5,122.8	259.4	80.9
1985	11.1	5,688.0	12.7	5,711.8	70.6	30.3	548.1	10.7	5,052.0	253.3	66.4
1986	10.7	5,705.0	13.7	5,729.4	101.6	28.0	566.8	10.4	5,022.6	249.4	71.1
1987	10.4	5,802.3	5.6	5,818.3	111.2	25.1	599.1	14.4	5,068.5	249.3	61.6
1988	14.4	5,771.1	5.3	5,790.8	141.8	25.2	604.3	15.2	5,004.3	243.7	62.1
1989 F	15.2	5,649.9	13.9	5,679.0	114.7	24.0	635.0	10.0	4,895.3	236.3	73-77

* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 786-1714.

Table 12.—U.S. Milk Supply & Use¹

	Pro- duc- tion	Farm use	Commercial		Im- ports	Total commer- cial supply	CCC net re- movals	Commercial		All milk price 2/ ----- \$/cwt
			Farm market- ings	Beg. stocks				Ending stocks	Disap- pear- ance	
			Billion pounds							
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75
1986	143.4	2.4	141.0	4.6	2.7	148.3	10.6	4.2	133.5	12.51
1987	142.5	2.2	140.3	4.2	2.5	146.9	6.7	4.6	135.6	12.54
1988 P	145.5	2.2	143.3	4.6	2.4	150.3	8.9	4.3	137.1	12.24
1989 F	147.2	2.2	145.0	4.3	2.3	151.6	8.8	4.2	138.6	13.00

¹/ Milkfat basis. Totals may not add because of rounding. ²/ Delivered to plants & dealers; does not reflect deductions. F = forecast. Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry & Eggs

	Annual			1988		1989					
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June	
Broilers											
Federally inspected slaughter, certified (mil. lb.)	14,265.6	15,502.5	15,984.0	1,398.0	1,386.0	1,270.1	1,473.4	1,333.5	1,527.2	1,506.2	
Wholesale price, 12-city (cts./lb.)	56.9	47.4	56.3	61.5	58.0	58.1	62.1	63.5	70.4	67.4	
Price of grower feed (\$/ton)	187	186	220	182	243	243	242	243	238	237	
Broiler-feed price ratio 1/	3.7	3.7	3.1	4.1	2.9	2.9	3.2	3.8	3.6	3.6	
Stocks beginning of period (mil. lb.)	26.6	23.9	24.8	39.5	35.9	32.8	32.5	32.4	37.9	35.3	
Broiler-type chicks hatched (mil.) 2/	5,013.3	5,379.2	5,588.7	473.8	481.3	442.8	502.5	493.5	522.9	509.8	
Turkeys											
Federally inspected slaughter, certified (mil. lb.)	3,133	3,717	3,903	373.2	254.1	248.1	301.3	268.8	356.6	385.2	
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	72.2	57.8	61.3	57.1	59.0	62.2	65.7	68.3	72.8	73.0	
Price of turkey grower feed (\$/ton)	215	213	243	214	262	264	258	256	255	251	
Turkey-feed price ratio 1/	4.1	3.9	3.0	3.0	2.7	2.9	3.1	3.3	3.4	3.5	
Stocks beginning of period (mil. lb.)	150.2	178.2	282.4	410.1	249.7	262.5	263.1	269.2	298.5	355.6	
Poults placed in U.S. (mil.)	225.4	240.4	242.0	26.1	23.1	23.7	26.9	26.4	28.6	29.1	
Eggs											
Farm production (mil.)	68,460	69,627	69,253	5,566	5,721	5,173	5,777	5,565	5,683	5,479	
Average number of layers (mil.)	278	280	286	271	272	272	270	267	267	266	
Rate of lay (eggs per layer on farms)	248	248	251	20.5	21.1	19.0	21.4	20.7	21.3	20.6	
Cartoned price, New York, Grade A large (cts./doz.) 3/	71.1	61.6	62.1	56.8	72.0	74.8	92.7	76.6	73.7	75.4	
Price of laying feed (\$/ton)	174	170	202	175	217	214	214	211	210	211	
Egg-feed price ratio 1/	7.0	7.6	5.3	5.3	5.9	5.8	7.5	6.2	5.9	6.0	
Stocks, first of month											
Shell (mil. doz.)	.72	1.16	1.29	.63	.27	.36	.21	.48	.54	.78	
Frozen (mil. doz.)	10.0	9.8	13.1	15.4	14.9	14.9	14.4	11.2	11.7	12.3	
Replacement chicks hatched (mil.)	424	428	366	33.0	26.6	27.2	32.7	35.9	38.3	34.7	

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 12 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 786-1714.

Table 14.—Dairy

	Annual			1988		1989					
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June	
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	11.30	11.23	11.03	10.34	11.90	11.26	10.98	11.09	11.12	11.33	
Wholesale prices											
Butter, grade A Chi. (cts./lb.)	144.5	140.2	132.5	133.5	131.0	131.0	131.0	131.0	131.0	131.0	
Am. cheese, Wis. assembly pt. (cts./lb.)	127.3	123.2	123.8	116.2	129.1	117.6	117.8	120.4	123.9	130.8	
Nonfat dry milk (cts./lb.) 2/	80.6	79.3	80.2	74.2	93.6	83.6	79.6	81.1	84.5	88.5	
USDA net removals											
Total milk equiv. (mil. lb.) 3/	10,628.1	6,706.0	8,856.2	550.7	1,563.2	1,471.6	1,156.5	1,398.8	1,468.3	863.5	
Butter (mil. lb.)	287.6	187.3	312.6	13.1	73.8	67.0	54.4	64.1	66.4	40.3	
Am. cheese (mil. lb.)	468.4	282.0	238.1	27.9	3.5	8.5	3.0	7.0	9.3	2.9	
Nonfat dry milk (mil. lb.)	827.3	559.4	267.5	28.4	0	0	0	0	0	0	
Milk											
Milk prod. 21 States (mil. lb.)	121,433	121,294	123,896	10,562	10,476	9,839	10,860	10,770	11,095	10,511	
Milk per cow (lb.)	13,399	13,955	14,378	1,227	1,225	1,152	1,275	1,266	1,305	1,236	
Number of milk cows (1,000)	9,063	8,692	8,617	8,608	8,553	8,538	8,520	8,510	8,505	8,504	
U.S. milk production (mil. lb.)	143,381	142,557	145,527	6/12,410	6/12,315	6/11,566	6/12,766	6/12,656	6/13,037	6/12,351	
Stock, beginning											
Total (mil. lb.)	13,695	12,867	7,440	10,495	8,189	8,927	10,448	11,000	11,870	13,245	
Commercial (mil. lb.)	4,590	4,165	4,646	5,321	4,289	4,673	5,018	4,940	5,140	5,763	
Government (mil. lb.)	9,105	8,702	2,794	5,174	3,900	4,254	5,430	6,059	6,729	7,482	
Imports, total (mil. lb.) 3/	2,733	2,490	2,394	178	213	170	181	177	162	--	
Commercial disappearance (mil. lb.)	133,498	135,657	137,187	11,851	10,392	9,748	11,680	11,051	10,919	--	
Butter											
Production (mil. lb.)	1,202.4	1,104.1	1,207.5	90.8	129.0	124.7	135.7	124.7	122.5	95.3	
Stocks, beginning (mil. lb.)	205.5	193.0	143.2	280.5	214.7	246.6	314.4	341.9	379.1	438.3	
Commercial disappearance (mil. lb.)	922.9	902.5	909.8	83.2	45.5	47.8	86.9	55.6	35.3	--	
American cheese											
Production (mil. lb.)	2,798.2	2,716.7	2,756.6	241.2	225.6	208.7	231.9	236.2	247.0	240.0	
Stocks, beginning (mil. lb.)	850.2	697.1	370.4	384.0	293.0	288.4	293.5	284.6	288.7	311.8	
Commercial disappearance (mil. lb.)	2,382.8	2,437.1	2,570.0	210.6	216.2	189.1	228.5	228.8	220.4	--	
Other cheese											
Production (mil. lb.)	2,411.1	2,627.7	2,815.0	235.4	230.9	210.8	256.5	236.4	247.9	245.6	
Stocks, beginning (mil. lb.)	94.1	92.0	89.7	93.4	104.7	111.4	111.4	110.9	117.0	115.8	
Commercial disappearance (mil. lb.)	2,684.9	2,880.2	3,034.1	248.4	239.3	225.2	274.2	245.6	265.9	--	
Nonfat dry milk											
Production (mil. lb.)	1,284.1	1,056.8	978.5	104.3	87.1	85.6	95.7	99.8	99.8	81.0	
Stocks, beginning (mil. lb.)	1,011.1	686.8	177.2	180.5	53.1	66.3	84.4	88.3	100.8	100.7	
Commercial disappearance (mil. lb.)	479.1	492.9	733.1	82.7	71.9	66.5	91.0	86.5	99.4	--	
Frozen dessert											
Production (mil. gal.) 4/	1,248.6	1,260.7	1,246.9	134.8	80.5	86.6	108.0	104.3	122.6	128.4	
	Annual			1987		1988				1989	
	1986	1987	1988	IV	I	II	III	IV	I P	II P	
Milk production (mil. lb.)	143,381	142,557	145,527	34,811	36,197	37,871	36,025	35,434	36,647	38,044	
Milk per cow (lb.)	13,260	13,802	14,213	3,385	3,519	3,697	3,526	3,471	3,611	3,763	
No. of milk cows (1,000)	10,813	10,329	10,239	10,285	10,285	10,244	10,218	10,208	10,148	10,110	
Milk-feed price ratio 5/	1.73	1.83	1.58	1.89	1.74	1.51	1.46	1.59	1.56	1.47	
Returns over concentrate 5/ costs (\$/cwt milk)	9.23	9.52	9.05	9.97	9.34	8.33	8.53	9.86	9.63	8.80	

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area, high heat spray process.

3/ Milk equivalent, fat basis. 4/ Ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. -- = not available.

Information contact: Jim Miller (202) 786-1770.

Table 15.—Wool

	Annual			1988		1989					
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June P	
U.S. wool price, 1/ (cts./lb.)	191	265	438	460	450	438	410	375	375	365	
Imported wool price, 2/ (cts./lb.)	201	247	372	378	432	417	387	363	339	323	
U.S. mill consumption, scoured											
Apparel wool (1,000 lb.)	126,768	129,677	117,069	12,079	10,610	11,074	13,718	10,400	8,700	11,552	
Carpet wool (1,000 lb.)	9,960	13,092	15,633	1,225	800	1,314	1,559	1,595	1,362	1,555	

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up.

2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary.

Information contact: John Lawler (202) 786-1840.

Table 16:—Meat Animals

	Annual			1988		1989					
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June	
Cattle on feed (7 States)											
Number on feed (1,000 head) 1/	7,920	7,643	8,066	7,819	7,765	7,700	7,661	8,012	7,847	7,555	
Placed on feed (1,000 head)	20,035	21,040	20,584	1,377	1,711	1,585	1,975	1,534	1,619	1,268	
Marketings (1,000 head)	19,263	19,410	19,698	1,697	1,672	1,509	1,549	1,570	1,747	1,751	
Other disappearance (1,000 head)	1,049	1,207	1,187	68	104	115	75	129	164	62	
Beef steer-corn price ratio,											
Omaha 2/	31.0	41.0	31.5	27.9	28.2	28.7	29.4	30.2	29.4	28.9	
Hog-corn price ratio, Omaha 2/	27.8	32.8	19.6	18.9	16.4	16.3	15.4	14.8	16.8	18.5	
Market prices (\$/cwt)											
Slaughter cattle											
Choice steers, Omaha	57.75	64.60	69.54	70.58	72.35	72.92	75.75	75.31	74.52	71.71	
Utility cows, Omaha	37.19	44.83	46.55	42.68	44.88	46.92	45.89	45.19	45.57	48.56	
Choice vealers, S.-St.-Paul 3/	59.92	78.74	90.23	100.88	229.63	225.06	257.50	269.06	260.05	258.44	
Feeder cattle											
Choice, Kansas City, 600-700 lb.	62.79	75.36	83.67	77.38	86.00	85.56	84.45	82.63	83.50	85.38	
Slaughter hogs											
Barrows & gilts, 7-markets	51.19	51.69	43.39	48.06	41.58	40.91	39.85	37.06	42.37	46.10	
Feeder pigs											
S. Mo. 40-50 lb. (per head)	45.62	46.69	38.88	31.40	35.25	34.18	39.55	34.74	34.24	28.85	
Slaughter sheep & lambs											
Lambs, Choice, San Angelo	69.46	78.09	68.84	59.38	68.13	68.83	70.90	78.17	73.56	72.63	
Ewes, Good, San Angelo	34.78	38.62	38.88	36.30	48.13	53.28	47.55	42.45	38.95	37.10	
Feeder lambs											
Choice, San Angelo	73.14	102.26	90.91	77.80	84.38	97.17	95.30	88.06	78.18	75.94	
Wholesale meat prices, Midwest											
Choice steer beef, 600-700 lb.	88.98	97.21	103.34	106.38	107.30	107.98	112.43	113.84	112.62	106.35	
Canner & cutter cow beef	71.31	83.70	87.77	81.28	91.23	96.93	92.17	89.77	89.74	93.83	
Pork loins, 14-18 lb. 4/	104.78	106.23	97.49	111.31	89.35	90.97	91.77	91.59	99.95	108.28	
Pork bellies, 12-14 lb.	65.82	63.11	41.25	45.51	36.91	31.41	30.91	25.49	29.11	32.90	
Hams, skinned, 14-17 lb.	80.01	80.96	71.03	66.51	65.80	67.11	63.00	61.60	63.30	64.00	
All fresh beef retail price 5/	--	212.64	224.35	227.18	234.05	233.94	238.50	237.33	238.31	236.47	
Commercial slaughter (1,000 head)*											
Cattle	37,288	35,647	35,072	3,068	2,789	2,568	2,822	2,644	3,024	3,025	
Steers	17,516	17,443	17,341	1,549	1,327	1,261	1,400	1,336	1,521	1,506	
Heifers	11,097	10,906	10,755	913	850	808	840	763	907	952	
Cows	7,961	6,610	6,334	548	561	457	532	493	540	508	
Bulls & stags	714	689	642	58	51	42	50	52	56	59	
Calves	3,408	2,815	2,504	212	203	181	200	158	163	167	
Sheep & lambs	5,635	5,199	5,293	428	428	425	519	409	447	437	
Hogs	79,598	81,081	87,738	6,902	7,332	6,791	7,763	7,380	7,480	7,079	
Commercial production (mil. lb.)											
Beef	24,213	23,405	23,419	2,025	1,896	1,744	1,889	1,757	1,998	2,022	
Veal	509	416	387	34	32	28	31	27	29	29	
Lamb & mutton	331	309	329	27	27	27	33	26	28	26	
Pork	13,998	14,312	15,614	1,233	1,310	1,204	1,373	1,321	1,341	1,266	
	Annual			1988				1989			
	1986	1987	1988	I	II	III	IV	I	II	III	
Cattle on feed (13 States)											
Number on feed (1,000 head) 1/	9,754	9,245	9,769	9,769	9,385	9,001	8,591	9,408	9,678	8,455	
Placed on feed (1,000 head)	23,583	24,894	24,353	5,824	5,893	5,986	6,650	6,212	5,177	--	
Marketings (1,000 head)	22,856	22,991	23,339	5,823	5,859	6,171	5,486	5,598	5,985	7/6,038	
Other disappearance (1,000 head)	1,236	1,379	1,375	385	418	225	347	344	415	--	
Hogs & pigs (10 States) 6/											
Inventory (1,000 head) 1/	41,100	39,690	42,995	42,995	41,345	44,065	45,000	43,210	41,605	43,690	
Breeding (1,000 head) 1/	5,258	5,110	5,510	5,510	5,520	5,630	5,460	5,335	5,420	5,560	
Market (1,000 head) 1/	35,842	34,580	37,485	37,485	35,825	38,435	39,540	37,875	36,185	38,130	
Farrowings (1,000 head)	8,223	8,838	9,316	2,123	2,578	2,359	2,261	2,109	2,535	7/2,359	
Pig crop (1,000 head)	63,835	68,888	71,848	16,489	20,175	18,007	17,216	16,439	19,900	--	

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 5/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 7/ Intentions. *Classes estimated. -- = not available.

Information contacts: Ron Gustafson or Leland Southard (202) 786-1285.

Table 17.—Supply & Utilization^{1,2}

	Area			Yield	Production	Total supply	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price
	Set aside 3/	Planted	Harvested									
	Mil. acres		Bu./acre									\$/bu.
Wheat												
1984/85	18.3	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,866	279	767	1,915	1,961	1,905	3.08
1986/87	20.2	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.42
1987/88	27.9	65.8	56.0	37.7	2,107	3,945	281	811	1,592	2,684	1,261	2.57
1988/89*	30.1	65.5	53.2	34.1	1,811	3,096	155	823	1,423	2,403	694	3.72
1989/90*	9.5	76.8	62.7	32.6	2,044	2,759	175	835	1,275	2,285	474	3.85-4.10
Rice	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
1984/85	.79	2.83	2.80	4,954	138.8	187.3	--	6/60.5	62.1	122.6	64.7	8.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	--	6/65.8	58.7	124.5	77.3	6.53
1986/87	1.48	2.38	2.36	5,651	133.4	213.3	--	6/77.7	84.2	161.9	51.4	3.75
1987/88	1.51	2.36	2.33	5,555	129.6	184.0	--	6/80.4	72.2	152.6	31.4	7.27
1988/89*	.93	2.93	2.90	5,511	159.5	194.9	--	6/83.0	87.0	170.0	24.9	6.50-7.00
1989/90*	1.15	2.77	2.75	5,497	150.9	180.8	--	6/86.1	78.0	164.1	16.7	8.00-10.00
Corn	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.63
1985/86	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,261	6,496	4,040	2.23
1986/87	13.5	76.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88	25.6	65.7	59.2	119.4	7,072	11,958	4,738	1,229	1,732	7,699	4,259	1.94
1988/89*	23.6	67.6	58.2	84.6	4,921	9,185	4,000	1,255	2,100	7,355	1,830	2.50-2.60
1989/90*	10.0	72.3	65.2	112.8	7,348	9,181	4,200	1,300	2,000	7,500	1,681	1.85-2.30
Sorghum	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	869	551	1.93
1986/87	3.0	15.3	13.9	67.7	938	1,489	535	12	198	746	743	1.37
1987/88	5.2	11.8	10.6	69.7	739	1,483	564	25	231	820	663	1.70
1988/89*	5.8	10.4	9.1	63.8	578	1,240	475	25	300	800	440	2.25-2.35
1989/90*	2.8	11.9	10.5	63.1	664	1,104	500	15	275	790	314	1.65-2.05
Barley	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87	2.1	13.1	12.0	50.8	611	944	298	174	137	608	336	1.61
1987/88	4.0	11.0	10.1	52.7	530	879	258	174	126	558	321	1.81
1988/89*	4.8	9.7	7.5	38.6	291	624	162	180	85	427	197	2.79
1989/90*	2.1	9.3	8.6	45.8	392	604	190	180	60	430	174	2.05-2.45
Oats	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1984/85	.1	12.4	8.2	58.0	474	689	433	74	1	509	180	1.67
1985/86	.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87	.6	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88	1.3	18.0	6.9	54.0	374	553	361	79	1	441	112	1.56
1988/89*	1.2	13.9	5.6	39.1	219	399	200	100	1	301	98	2.61
1989/90*	.3	12.1	7.3	52.3	381	529	300	110	2	412	117	1.55-1.95
Soybeans	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1984/85	0	67.8	66.1	28.1	1,861	2,037	7/93	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	7/86	1,053	740	1,879	536	5.05
1986/87	0	60.4	58.3	33.3	1,940	2,476	7/104	1,179	757	2,040	436	4.78
1987/88	0	58.0	57.0	33.7	1,923	2,359	7/81	1,174	802	2,057	302	5.88
1988/89*	0	58.9	57.4	26.8	1,539	1,841	7/96	1,060	530	1,686	155	7.35
1989/90*	0	60.5	59.1	32.3	1,905	2,060	7/95	1,105	575	1,775	285	4.75-6.00
Soybean oil								Mil. lbs.				8/ Cts./lb.
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.50
1985/86	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.00
1986/87	--	--	--	--	12,783	13,745	--	10,833	1,187	12,020	1,725	15.40
1987/88	--	--	--	--	9/ 12,974	14,895	--	10,930	1,873	12,803	2,092	22.65
1988/89*	--	--	--	--	9/ 11,648	13,890	--	10,400	1,425	11,825	2,265	21.00
1989/90*	--	--	--	--	12,275	14,370	--	10,900	1,400	12,300	2,070	17.5-21.5
Soybean meal								1,000 tons				10/ \$/ton
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86	--	--	--	--	24,951	25,338	--	19,090	6,036	25,126	212	155
1986/87	--	--	--	--	27,758	27,970	--	20,387	7,343	27,730	240	163
1987/88	--	--	--	--	28,060	28,304	--	21,276	6,871	28,147	153	222
1988/89*	--	--	--	--	24,897	25,050	--	19,500	5,250	24,750	300	230
1989/90*	--	--	--	--	26,250	26,550	--	21,000	5,250	26,250	300	145-175

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area			Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Set aside 3/	Planted	Harvested									

	Mil. acres			Lb./acre			Mil. bales			Cts./lb.		
Cotton 11/												
1984/85	2.5	11.1	10.4	600	13.0	15.8	--	5.5	6.2	11.8	4.1	58.70
1985/86	3.6	10.7	10.2	630	13.4	17.6	--	6.4	2.0	8.4	9.4	56.50
1986/87	3.4	10.0	8.5	552	9.7	19.1	--	7.4	6.7	14.1	5.0	52.40
1987/88	3.2	10.4	10.0	706	14.8	19.8	--	7.6	6.6	14.2	5.8	64.30
1988/89*	1.6	12.5	11.9	619	15.4	21.2	--	7.6	6.3	13.8	7.5	55.50
1989/90*	3.1	10.5	9.5	595	11.8	19.3	--	7.7	7.8	15.5	3.9	--

*August 10, 1989 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soybean & soybean meal. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, Pk, & acreage reduction programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88 & 300 million in 1988/89. 10/ Average of 44 percent, Decatur. 11/ Upland & extra long staple. Stock estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. -- = not available.

Information contact: Commodity Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1988	1989				
	1984/85	1985/86	1986/87	1987/88	June	Feb	Mar	Apr	May	June
Wholesale prices										
Wheat, No. 1 HRW,										
Kansas City (\$/bu.) 2/	3.74	3.28	2.72	2.96	3.79	4.37	4.32	4.46	4.55	4.41
Wheat, DNS,										
Minneapolis (\$/bu.) 2/	3.70	3.25	2.62	2.92	4.17	4.37	4.46	4.45	4.50	4.29
Rice, S.W. La. (\$/cwt) 3/	17.98	16.11	10.25	19.25	18.85	14.20	13.80	13.50	15.40	15.50
Wheat										
Exports (mil. bu.)	1,424	915	1,004	1,592	129	134	149	122	97	--
Mill grind (mil. bu.)	676	703	755	753	63	59	59	59	63	--
Wheat flour production (mil. cwt)	301	314	335	336	28	27	26	27	28	--
Rice										
Exports (mil. cwt, rough equiv.)	62.1	58.7	84.2	72.2	4.0	9.1	10.0	6.5	11.6	--
	Marketing year 1/			1987	1988		1989			
	1985/86	1986/87	1987/88	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May
Wheat										
Stocks, beginning (mil. bu.)	1,425	1,905	1,821	2,976.5	2,500.6	1,923.5	1,260.8	2,253.6	1,709.9	1,221.7
Domestic use										
Food (mil. bu.)	674	696	719	191.1	168.6	180.0	179.2	194.4	168.6	182.8
Seed, feed & residual (mil. bu.) 4/	279	413	288	76.6	5.0	2.6	283.6	40.4	41.1	30.1
Exports (mil. bu.)	915	1,004	1,592	308.5	413.1	460.6	363.4	330.1	363.1	383.4

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use. -- = not available.

Information contacts: Ed Allen & Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1988	1989				
	1984/85	1985/86	1986/87	1987/88	June	Feb	Mar	Apr	May	June
U.S. price, SLM,										
1-1/16 in. (cts./lb.) 2/	60.5	60.0	53.2	63.1	62.9	55.4	57.6	61.4	63.7	64.1
Northern Europe prices										
Index (cts./lb.) 3/	69.2	48.9	62.0	72.7	68.8	63.0	66.0	73.8	77.3	78.8
U.S. M 1-3/32 in. (cts./lb.) 4/	73.9	64.8	61.8	76.3	80.0	68.1	70.0	74.1	76.9	77.9
U.S. mill consumpt. (1,000 bales)	5,545	6,399	7,452	7,617	603	595	706	636	755	726
Exports (thou bales)	6,201	1,969	6,684	6,582	554	738	629	627	754	546
Stocks, beginning (1,000 bales)	2,775	4,102	9,348	5,026	7,542	15,170	13,947	12,613	11,350	9,913

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1988	1989				
	1984/85	1985/86	1986/87	1987/88	June	Feb	Mar	Apr	May	June
Wholesale prices										
Corn, no. 2 yellow, Chicago (\$/bu.)	2.79	2.35	1.64	2.14	2.74	2.72	2.78	2.72	2.77	2.68
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.46	3.72	2.73	3.40	4.58	4.26	4.32	4.17	4.29	4.15
Barley, feed, Duluth (\$/bu.) 2/	2.09	1.53	1.44	1.78	2.41	2.33	2.49	2.52	2.41	2.11
Barley, malting, Minneapolis (\$/bu.)	2.55	2.24	1.89	2.04	3.61	4.19	4.33	4.29	3.84	3.00
Exports 3/										
Corn (mil. bu.)	1,865	1,241	1,504	1,732	181.2	154.9	202.8	177.5	212.8	--
Feed grains (mil. metric tons) 4/	56.6	36.6	46.3	52.6	4.0	4.8	6.0	5.5	6.2	--
	Marketing year 1/				1988			1989		
	1984/85	1985/86	1986/87	1987/88	Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	June-Aug
Corn										
Stocks, beginning (mil. bu.)	1,006	1,648	4,040	4,882	7,635	5,836	4,259	7,072	5,204	3,419
Domestic use										
Feed (mil. bu.)	4,079	4,095	4,714	4,746	960	839	1,338	1,077	848	--
Food, seed, ind. (mil. bu.)	1,091	1,160	1,192	1,224	315	323	294	284	339	--
Exports (mil. bu.)	1,865	1,241	1,504	1,720	514	414	482	510	600	--
Total use (mil. bu.)	7,036	6,496	7,410	7,690	1,804	1,577	2,109	1,869	1,787	--

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Excludes products. 4/ Aggregated data for corn, sorghum, oats, & barley. -- not available.

Information contact: Joy Harwood (202) 786-1840.

Table 21.—Fats & Oils

	Marketing year *				1988	1989				
	1984/85	1985/86	1986/87	1987/88	May	Jan	Feb	Mar	Apr	May
Soybeans										
Wholesale price, no. 1 yellow, Chicago (\$/bu.)	5.88	5.20	5.03	6.67	7.29	7.70	7.45	7.62	7.25	7.30
Crushings (mil. bu.)	1,030.5	1,052.8	1,178.8	1,174.5	98.0	99.8	85.8	93.5	89.6	90.0
Exports (mil. bu.)	598.2	740.7	756.9	801.6	39.7	66.6	56.8	67.9	41.4	23.6
Stocks, beginning (mil. bu.)	175.7	316.0	536.0	436.0	113.9	138.6	131.9	112.0	99.2	72.8
Soybean oil										
Wholesale price, crude, Decatur (cts./lb.)	29.52	18.02	15.36	22.92	23.56	21.13	21.21	22.11	21.97	22.23
Production (mil. lb.)	11,467.9	11,617.3	12,783.1	12,974.5	1,087.5	1,105.8	952.3	1,041.2	1,004.0	977.4
Domestic disp. (mil. lb.)	9,888.5	10,045.9	10,820.2	10,734.1	763.7	838.0	687.2	937.8	1,032.9	826.6
Exports (mil. lb.)	1,659.9	1,257.3	1,184.5	1,873.2	138.6	104.5	65.8	112.4	105.5	161.4
Stocks, beginning (mil. lb.)	720.5	632.5	946.6	1,725.0	2,385.2	2,539.9	2,703.2	2,902.4	2,893.4	2,759.0
Soybean meal										
Wholesale price, 44% protein, Decatur (\$/ton)	125.46	154.88	162.61	221.90	223.50	249.30	234.10	237.10	220.75	214.70
Production (1,000 ton)	24,529.3	24,951.3	27,758.8	28,060.2	2,339.9	2,359.8	2,036.3	2,218.8	2,126.6	2,061.2
Domestic disp. (1,000 ton)	19,481.3	19,117.2	20,387.4	21,275.9	1,667.1	1,723.2	1,570.8	1,615.8	1,456.7	1,565.1
Exports (1,000 ton)	4,916.5	6,009.3	7,343.0	6,871.0	716.7	548.0	512.1	760.9	610.9	532.4
Stocks, beginning (1,000 ton)	255.4	386.9	211.7	240.2	299.5	353.6	442.3	395.7	237.9	296.8
Margarine, wholesale price, Chicago, white (cts./lb.)	55.5	51.2	40.3	40.3	49.0	54.63	54.00	55.44	55.76	55.15

* Beginning September 1 for soybeans; October 1 for soybean meal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786-1840, Tom Bickerton (202) 786-1824.

Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates		Base acres 1/	Program 2/	Participation rate 3/
				Deficiency	Paid land diversion			
					PIK 4/			
				\$/bu.	Percent 4/	Mil. acres		Percent of base
Wheat								
1983/84	4.30	3.65		.65	95	90.2	15/5/10-30	78/78/51
1984/85	4.38	3.30		1.00	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30		1.08		94.0	20/10/0	73
1986/87 5/	4.38	3.00	2.40	1.98	1.10	91.0	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.78		87.6	27.5/0/0	87
1988/89	4.23	2.76	2.21	1.53		84.8	27.5/0/0	85
1989/90	4.10	2.58	2.06	7/ .50			10/0/0	77
Rice								
				\$/cwt				
1983/84	11.40	8.14		2.77	80	3.95	15/5/10-30	98/98/87
1984/85	11.90	8.00		3.76		4.16	25/0/0	85
1985/86	11.90	8.00	6/3.16	3.90		4.23	20/15/0	90
1986/87 5/	11.90	7.20	6/3.82	4.70		4.20	35/0/0	95
1987/88	11.66	6.84	6/5.77	4.82		4.18	35/0/0	95
1988/89	11.15	6.63	6/6.30	1.65		4.20	25/0/0	92
1989/90	10.80	6.50	6/6.50	1.29		4.10	25/0/0	94
Corn								
				\$/bu.				
1983/84	2.86	2.65		0	80	82.6	10/10/10-30	71/71/60
1984/85	3.03	2.55		.43		80.8	10/0/0	54
1985/86	3.03	2.55		.48		84.2	10/0/0	69
1986/87 5/	3.03	2.40	1.92	1.11	.73	81.7	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00	81.5	20/15/0	90
1988/89	2.93	2.21	1.77	7/ 1.10	1.75	82.9	20/10/0; 0/92	87
1989/90	2.84	2.06	1.65	7/ .89			10/0/0; 0/92	80
Sorghum								
				\$/bu.				
1983/84	2.72	2.52		0	80	17.6	8/ [same]	72/72/53
1984/85	2.88	2.42		.46		18.4		42
1985/86	2.88	2.42		.46		19.3		55
1986/87 5/	2.88	2.28	1.82	1.06	.65	19.0		75
1987/88	2.88	2.17	1.74	1.14	1.90	17.4		83/42
1988/89	2.78	2.10	1.68	1.08	1.65	16.8		81
1989/90	2.70	1.96	1.57	7/ .90				76
Barley								
				\$/bu.				
1983/84	2.60	2.16		.21	1.00	10.2	8/ [same]	55/55/0
1984/85	2.60	2.08		.26		11.6		44
1985/86	2.60	2.08		.52		13.3		57
1986/87 5/	2.60	1.95	1.56	.99	1.57	12.4		72
1987/88	2.60	1.86	1.49	.79	1.60	12.5		84
1988/89	2.51	1.80	1.44	.76	1.40	12.5		78
1989/90	2.43	1.68	1.34	7/ .23				67
Oats								
				\$/bu.				
1983/84	1.60	1.36		.11	.75	10.1	8/ [same]	20/20/0
1984/85	1.60	1.31		0		9.8		14
1985/86	1.60	1.31		.29		9.4		14
1986/87 5/	1.60	1.23	.99	.39	.36	9.2		37
1987/88	1.60	1.17	.94	.20	.80	8.4		45
1988/89	1.55	1.13	.90	11/ .30		7.9	5/0/0; 0/92	30
1989/90	1.50	1.06	.85				5/0/0; 0/92	76
Soybeans 9/								
				\$/bu.				
1983/84		5.02						
1984/85		5.02						
1985/86		5.02						
1986/87 5/		4.77						
1987/88		4.77						
1988/89		4.77						
1989/90 10/								
Upland cotton								
				Cts./lb.				
1983/84	76.0	55.00		12.10	85	15.2	20/5/10-30	93/93/77
1984/85	81.0	55.00		18.60		15.6	25/0/0	70
1985/86	81.0	57.30		23.70	30.00	15.9	20/10/0	82/0/0
1986/87 5/	81.0	55.00	11/44.00	26.00		15.6	25/0/0	93
1987/88	79.4	52.25	12/	17.3		14.7	25/0/0	92
1988/89	75.9	51.80		16.00		14.5	12.5/0/0	88
1989/90	73.4	50.00					25/0/0	85

1/ Includes planted area plus acres considered planted (ARP, PLD, D-92 etc). Net of CRP. Revised April 1989. 2/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. In addition to the percentages shown for 1983/84, farmers had the option of submitting bids to retire their entire base acreages. 3/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 4/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1983 & 1984 PIK rates apply only to the 10-30 and 10-20 portions, respectively. 5/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 6/ Annual average world market price. 7/ Guaranteed to farmers signed up for 0/92. 8/ The sorghum, oats, & barley programs were the same as for corn each year except 1983/84, when PIK was not offered on barley & oats, & in 1988 for oats. 9/ There are no target prices, acreage programs, or payment rates for soybeans. 10/ Loan rate is not to be announced prior to August 1, 1989. 11/ Loan repayment rate. 12/ Loans may be repaid at the lower of the loan rate or world market prices.

Information contact: Joy Harwood (202) 786-1840.

Table 23.—Fruit

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Citrus 1/												
Production (1,000 ton)	14,255	13,329	16,484	15,105	12,057	13,608	10,792	10,525	11,051	11,968	12,728	13,058
Per capita consumpt. (lbs.) 2/	115.1	107.5	108.4	112.6	104.4	109.3	120.0	102.8	109.1	117.3	112.8	113.6
Noncitrus 3/												
Production (1,000 tons)	12,274	12,460	13,689	15,153	12,961	14,217	13,707	13,796	13,680	13,408	15,454	15,259
Per capita consumpt. (lbs.) 2/	83.6	84.1	85.6	87.4	88.0	89.2	88.7	93.9	91.8	96.4	101.5	97.7
	1988						1989					
F.o.b. shipping point prices	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Apples (\$/cwt) 4/	23.87	23.05	20.45	13.80	12.15	12.63	10.78	13.94	12.32	11.25	9.41	7.86
Pears (\$/box) 5/	--	--	--	--	12.48	12.33	9.70	10.58	10.75	9.73	13.67	14.38
Oranges (\$/box) 6/	6.41	4.90	4.17	5.48	5.82	6.50	6.20	6.21	5.27	6.64	8.92	8.10
Grapefruit (\$/box) 6/	4.85	4.09	7.34	7.57	4.77	4.71	3.72	3.34	3.36	3.28	4.05	4.85
Stocks, ending												
Fresh apples (mil. lbs.)	95.0	5.1	1,857.7	4,601.8	3,904.3	3,265.8	2,659.6	2,094.6	1,544.2	1,069.1	619.3	347.3
Fresh pears (mil. lbs.)	--	117.6	434.0	425.7	368.3	295.5	234.6	162.9	115.1	57.7	26.6	6.4
Frozen fruits (mil. lbs.)	864.0	981.4	997.5	1,116.0	1,011.8	937.3	834.5	759.3	671.4	601.7	574.3	615.2
Frozen orange juice (mil. lbs.)	1,001.8	862.5	693.1	639.7	587.7	721.6	980.9	1,151.1	1,086.8	1,204.2	1,296.1	1,296.1

1/ Crop year beginning with year indicated. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns.
P = Preliminary. -- = not available.

Information Contact: Wynne Wapper (202) 786-1882.

Table 24.—Vegetables

	Calendar year												
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988			
Production													
Total vegetables (1,000 cwt) 1/	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436	464,141	452,731			
Fresh (1,000 cwt) 1/ 2/	190,859	190,228	194,694	207,924	197,919	217,132	217,932	216,267	219,689	225,784			
Processed (tons) 3/	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,616,560	12,222,620	11,347,370			
Mushrooms (1,000 lbs.)	470,069	469,576	517,146	490,826	561,531	595,681	587,956	614,393	631,690	--			
Potatoes (1,000 cwt)	342,447	302,857	338,591	355,131	333,911	362,612	407,109	361,511	385,462	349,973			
Sweetpotatoes (1,000 cwt)	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,674	12,064	11,832			
Dry edible beans (1,000 cwt)	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,886	25,909	19,230			
	1988						1989						
	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Shipments													
Fresh (1,000 cwt) 4/	36,998	21,631	21,791	15,215	16,475	20,999	16,535	18,041	18,754	24,944	20,887	27,972	29,815
Potatoes (1,000 cwt)	12,791	7,461	10,014	9,963	9,958	13,948	11,092	11,137	10,497	14,733	13,005	12,773	12,735
Sweetpotatoes (1,000 cwt)	127	91	212	262	305	876	460	246	278	441	229	170	140

1/ 1983 data are not comparable with 1984 & 1985. 2/ Estimate reinstated for asparagus with the 1984 crop; all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 3/ Estimates reinstated for cucumbers with the 1984 crop; all other years also include snap beans, sweet corn, green peas, & tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. -- = not available.

Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual					1988			1989	
	1984	1985	1986	1987	1988	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June
Sugar										
Production 1/	5,890	5,969	6,257	7,309	7,069	772	642	3,573	1,835	677
Deliveries 1/	8,454	8,035	7,786	8,167	8,188	1,983	2,147	2,107	1,902	3,958
Stocks, ending 1/	3,005	3,126	3,225	3,195	3,117	2,467	1,316	3,134	3,413	2,351
Coffee										
Composite green price N.Y. (cts./lb.)	142.95	137.46	185.18	109.14	115.59	121.44	114.20	120.75	126.67	118.01
Imports, green bean equiv. (mil. lbs.) 2/	2,411	2,550	2,596	2,638	2,072	422	594	472	586	535
	Annual					1988			1989	
	1986	1987	1988	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Tobacco										
Prices at auctions 3/										
Flue-cured (\$/lb.)	1.52	1.59	1.61	--	1.61	--	--	--	--	--
Burley (\$/lb.)	1.57	1.56	1.62	--	1.63	1.62	1.60	1.54	--	--
Domestic consumption 4/										
Cigarettes (bil.)	584.0	577.0	543.3	44.8	56.3	39.5	46.9	41.9	51.7	44.4
Large cigars (mil.)	3,090	2,760	2,541	196.3	209.7	203.3	169.3	171.4	217.6	179.2

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. P = preliminary.
-- = not available.

Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.

Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 P	1989/90 F
	Million units						
Wheat							
Area (hectares)	228.8	231.0	229.3	228.1	219.9	217.9	226.5
Production (metric tons)	489.3	511.9	500.1	530.7	501.8	500.5	527.0
Exports (metric tons) 1/	102.0	107.0	85.0	90.7	105.5	97.8	99.2
Consumption (metric tons) 2/	474.1	493.0	496.2	522.4	531.6	530.0	536.9
Ending stocks (metric tons) 3/	145.2	164.0	167.9	176.1	146.3	116.8	106.8
Coarse grains							
Area (hectares)	335.1	334.7	341.2	336.8	323.2	327.2	327.5
Production (metric tons)	687.6	815.8	843.3	835.5	791.5	729.5	799.6
Exports (metric tons) 1/	93.4	100.4	83.2	84.1	83.1	96.6	96.7
Consumption (metric tons) 2/	758.8	782.6	799.0	809.6	811.9	800.6	814.4
Ending stocks (metric tons) 3/	110.7	143.9	208.1	234.0	213.6	142.5	127.8
Rice, milled							
Area (hectares)	144.2	144.3	144.9	145.1	140.7	143.7	145.4
Production (metric tons)	307.9	318.8	320.0	318.3	313.2	328.7	330.0
Exports (metric tons) 4/	12.6	11.4	12.6	12.9	11.9	14.1	13.0
Consumption (metric tons) 2/	304.5	310.6	319.6	323.1	319.4	326.3	330.5
Ending stocks (metric tons) 3/	46.6	54.9	54.7	50.2	44.0	46.4	46.0
Total grains							
Area (hectares)	708.1	710.0	715.4	710.0	683.8	688.8	699.4
Production (metric tons)	1,484.8	1,646.5	1,663.4	1,684.5	1,606.5	1,558.7	1,656.6
Exports (metric tons) 1/	208.0	218.8	180.8	187.7	200.5	208.5	208.9
Consumption (metric tons) 2/	1,537.4	1,586.2	1,614.8	1,655.1	1,662.9	1,656.9	1,681.8
Ending stocks (metric tons) 3/	302.5	362.8	430.7	460.3	403.9	305.7	280.6
Oilseeds							
Crush (metric tons)	135.8	150.7	155.0	161.4	166.8	165.6	173.1
Production (metric tons)	165.0	191.1	196.1	194.2	207.9	201.1	214.7
Exports (metric tons)	33.0	33.1	34.5	37.7	39.5	31.8	34.0
Ending stocks (metric tons)	15.7	21.1	26.8	23.4	23.8	20.5	22.0
Meals							
Production (metric tons)	92.5	101.8	105.0	110.4	114.3	112.0	117.8
Exports (metric tons)	29.7	32.3	34.4	36.7	36.3	36.8	39.0
Oils							
Production (metric tons)	42.1	46.2	49.3	50.3	52.7	53.2	55.8
Exports (metric tons)	13.7	15.6	16.4	16.9	17.6	17.4	18.2
Cotton							
Area (hectares)	31.0	33.9	31.9	29.9	31.1	34.0	33.0
Production (bales)	65.6	88.2	79.6	70.4	80.8	84.0	80.6
Exports (bales)	19.2	20.2	20.2	26.0	23.2	25.2	25.0
Consumption (bales)	68.3	70.0	75.8	82.5	83.9	83.4	85.1
Ending stocks (bales)	24.0	42.4	47.2	33.6	30.8	31.1	26.2
	1983	1984	1985	1986	1987	1988	1989 F
Red meat							
Production (metric tons)	97.5	99.6	103.5	106.4	108.8	109.9	110.6
Consumption (metric tons)	95.8	97.6	101.5	105.3	107.1	108.6	109.1
Exports (metric tons) 1/	5.9	5.9	6.2	6.6	6.6	6.7	7.0
Poultry							
Production (metric tons)	24.4	25.2	26.2	27.4	29.2	30.1	31.3
Consumption (metric tons)	24.3	24.8	26.0	27.0	28.8	29.7	30.8
Exports (metric tons) 1/	1.3	1.3	1.2	1.3	1.5	1.5	1.6
Dairy							
Milk production (metric tons)	413.0	413.5	419.1	427.0	427.0	430.5	433.8

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes.
 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1984 data correspond with 1983/84, etc. P = preliminary. F = forecast.

Information contacts: Frederic Surls (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.

U.S. Agricultural Trade

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1988		1989				
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.19	3.11	3.97	4.10	4.75	4.70	4.88	4.79	4.82	4.62
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.27	1.95	2.73	3.01	3.03	3.00	3.03	2.95	3.02	2.91
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.16	1.88	2.52	2.91	2.81	2.81	2.83	2.76	2.84	2.67
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	5.45	5.55	7.81	9.38	8.09	7.89	8.05	7.61	7.61	7.48
Soybean oil, Decatur (cts./lb.)	16.36	15.85	23.52	27.51	20.98	21.02	22.02	21.88	22.23	20.78
Soybean meal, Decatur (\$/ton)	157.62	175.57	234.75	290.42	248.76	234.18	235.70	220.90	215.09	227.36
Cotton, 8-market avg. spot (cts./lb.)	53.47	64.35	57.25	62.92	55.67	55.39	57.60	61.43	63.70	64.18
Tobacco, avg. price at auction (cts./lb.)	153.96	144.32	147.93	141.34	162.27	159.74	159.74	160.43	160.43	160.43
Rice, f.o.b. mill, Houston (\$/cwt)	14.60	13.15	19.60	20.50	15.00	15.00	15.00	15.00	15.00	15.50
Inedible tallow, Chicago (cts./lb.)	9.03	13.79	16.64	17.18	14.90	16.00	14.86	14.60	14.70	15.10
Import commodities										
Coffee, N.Y. spot (\$/lb.)	2.01	1.09	1.21	1.23	1.46	1.31	1.28	1.33	1.36	1.21
Rubber, N.Y. spot (cts./lb.)	42.87	50.65	59.20	70.64	55.95	59.34	56.69	55.23	52.07	49.50
Cocoa beans, N.Y. (\$/lb.)	.88	.87	.69	.71	.64	.68	.64	.58	.54	.54

Information contact: Mary Teymourian (202) 786-1820.

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates¹

	1988					1989						
	Aug	Sept	Oct	Nov	Dec	Jan	Feb P	Mar P	Apr P	May P	June P	July P
	1980=100											
Total U.S. trade 2/	110.5	110.5	107.6	103.5	103.3	106.9	107.9	109.2	109.5	114.0	115.5	111.8
Agricultural trade												
U.S. markets	106.1	107.4	104.8	101.9	101.5	103.2	103.4	103.5	102.9	104.6	105.7	105.9
U.S. competitors	128.1	128.1	126.3	123.8	123.0	123.8	124.1	121.5	118.5	117.4	118.1	120.4
Wheat												
U.S. markets	115.7	118.8	116.5	114.6	114.6	117.1	116.9	113.8	110.7	109.5	109.0	110.2
U.S. competitors	120.7	119.7	116.6	114.2	112.6	113.3	113.9	115.4	115.3	117.6	118.9	126.5
Soybeans												
U.S. markets	104.5	104.5	101.9	98.1	97.9	100.6	101.1	102.0	102.1	105.1	107.2	104.2
U.S. competitors	185.9	174.7	169.2	167.5	164.7	162.6	161.3	153.8	139.9	129.6	128.0	129.2
Corn												
U.S. markets	93.6	94.1	91.4	88.2	87.6	89.0	89.1	89.6	89.3	90.9	93.1	93.3
U.S. competitors	171.6	164.8	159.3	155.0	153.6	156.8	157.8	158.2	158.3	161.4	163.3	160.0
Cotton												
U.S. markets	101.8	102.1	100.0	96.9	96.4	97.9	97.9	98.4	98.3	99.8	100.9	99.3
U.S. competitors	99.5	101.8	99.1	97.1	95.8	95.2	94.2	95.2	93.0	91.8	96.1	97.4

1/ Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. 2/ Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter, David Stalkings (202) 786-1706.

Table 29.—Trade Balance

	Fiscal year 1/									May
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1989
	\$ million									
Exports										
Agricultural	43,780	39,097	34,769	38,027	31,201	26,309	27,876	35,334	39,000	3,327
Nonagricultural	185,423	176,308	159,373	170,014	179,236	176,628	202,911	259,013	--	27,967
Total 2/	229,203	215,405	194,142	208,041	210,437	202,937	230,787	294,347	--	31,294
Imports										
Agricultural	17,218	15,485	16,373	18,916	19,740	20,875	20,650	21,011	21,000	1,946
Nonagricultural	237,469	233,349	230,527	297,736	313,722	342,855	367,374	409,141	--	39,128
Total 3/	254,687	248,834	246,900	316,652	333,462	363,730	388,024	430,152	--	41,074
Trade balance										
Agricultural	26,562	23,612	18,396	19,111	11,461	5,434	7,226	14,323	18,000	1,381
Nonagricultural	-52,046	-57,041	-71,154	-127,722	-134,486	-166,227	-164,463	-150,128	--	-11,161
Total	-25,484	-33,429	-52,758	-108,611	-123,025	-160,793	-157,237	-135,805	--	-9,780

1/ Fiscal years begin October 1 & end September 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988.

2/ Domestic exports including Department of Defense shipments (F.A.S. value). 3/ Imports for consumption (customs value).

F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 30.—U.S. Agricultural Exports & Imports

	Fiscal year*				May	Fiscal year*				May
	1986	1987	1988	1989 F	1989	1986	1987	1988	1989 F	1989
	1,000 units					\$ million				
EXPORTS										
Animals, live (no.) 1/	570	275	1,082	--	73	344	331	452	--	19
Meats & preps., excl. poultry (mt)	451	548	631	2/600	77	1,012	1,300	1,797	--	210
Dairy products (mt)	480	445	388	--	53	431	491	536	500	38
Poultry meats (mt)	265	376	390	400	41	282	406	424	--	45
Fats, oils, & greases (mt)	1,355	1,220	1,362	3/1,400	81	477	417	545	--	33
Hides & skins incl. furskins	--	--	--	--	--	1,440	1,666	1,838	--	153
Cattle hides, whole (no.) 1/	25,596	24,333	23,282	--	2,448	1,131	1,254	1,457	--	120
Mink pelts (no.) 1/	2,697	2,760	2,455	--	293	65	103	88	--	8
Grains & feeds (mt)	74,358	90,211	108,905	--	10,323	9,472	9,059	12,581	4/16,300	1,501
Wheat (mt)	25,501	28,204	40,501	37,000	2,492	3,260	2,877	4,467	5/6,200	405
Wheat flour (mt)	1,094	1,305	1,046	1,300	103	203	207	171	--	25
Rice (mt)	2,382	2,454	2,173	2,400	353	648	551	751	800	108
Feed grains, incl. products (mt)	36,236	47,606	53,308	62,500	6,166	3,817	3,752	5,209	7,500	741
Feeds & fodders (mt)	8,392	10,113	11,233	6/11,000	1,072	1,286	1,455	1,719	--	178
Other grain products (mt)	1,015	755	908	--	164	332	285	361	--	53
Fruits, nuts, and preps. (mt)	2,003	2,146	2,409	--	244	1,766	2,050	2,368	--	207
Fruit juices, incl. froz. (1,000 hectoliters) 1/	3,652	4,364	5,497	--	600	148	185	252	--	33
Vegetables & preps. (mt)	1,442	1,629	1,826	--	256	997	1,176	1,282	--	151
Tobacco, unmanufactured (mt)	224	224	229	200	15	1,318	1,203	1,296	1,300	93
Cotton, excl. linters (mt)	482	1,306	1,388	1,400	148	678	1,419	2,136	2,000	203
Seeds (mt)	269	305	286	--	24	367	371	415	400	28
Sugar, cane or beet (mt)	375	582	318	--	28	75	113	98	--	8
Oilseeds & products (mt)	27,583	29,725	29,471	--	1,341	6,271	6,308	7,700	6,800	412
Oilseeds (mt)	20,684	21,905	21,366	--	703	4,394	4,423	5,238	--	203
Soybeans (mt)	20,139	21,394	20,908	15,400	631	4,174	4,205	5,008	4,300	177
Protein meal (mt)	5,614	6,786	6,406	4,500	510	1,132	1,347	1,502	1,300	131
Vegetable oils (mt)	1,284	1,035	1,699	--	129	746	538	961	--	78
Essential oils (mt)	7	8	9	--	1	105	111	120	--	15
Other	568	565	668	--	40	1,126	1,273	1,495	--	178
Total	109,862	129,290	148,280	146,500	12,672	26,309	27,876	35,334	39,000	3,327
IMPORTS										
Animals, live (no.) 1/	1,885	1,994	2,238	--	176	637	610	729	700	56
Meats & preps., excl. poultry (mt)	1,139	1,282	1,280	--	98	2,248	2,797	2,788	--	219
Beef & veal (mt)	693	778	779	725	62	1,252	1,575	1,681	1,600	142
Pork (mt)	406	462	456	410	32	900	1,125	1,001	900	66
Dairy products (mt)	400	461	337	355	28	786	849	881	800	76
Poultry & products 1/	--	--	--	--	--	101	112	97	--	12
Fats, oils, & greases (mt)	22	21	20	--	1	17	18	19	--	1
Hides & skins, incl. furskins 1/	--	--	--	--	--	200	304	247	--	21
Wool, unmanufactured (mt)	53	60	56	--	6	160	201	292	--	30
Grains & feeds (mt)	2,311	2,336	3,050	3,300	294	668	727	868	1,000	95
Fruits, nuts, & preps., excl. juices (mt)	4,637	4,840	4,797	4,795	540	1,976	2,179	2,169	--	226
Bananas & plantains (mt)	3,042	3,106	3,030	2,950	289	740	817	820	800	81
Fruit juices (1,000 hectoliters) 1/	31,539	34,059	26,754	27,000	2,927	698	728	767	--	83
Vegetables & preps. (mt)	2,199	2,446	2,521	2,550	260	1,560	1,509	1,593	1,700	191
Tobacco, unmanufactured (mt)	208	225	217	200	16	606	634	611	500	46
Cotton, unmanufactured (mt)	41	38	36	--	2	14	7	9	--	7/
Seeds (mt)	89	133	143	170	10	111	156	153	200	16
Nursery stock & cut flowers 1/	--	--	--	--	--	353	369	419	--	49
Sugar, cane or beet (mt)	1,905	1,492	1,069	--	126	654	497	368	--	48
Oilseeds & products (mt)	1,508	1,572	1,772	1,865	168	639	579	838	900	84
Oilseeds (mt)	197	165	208	--	62	69	56	71	--	22
Protein meal (mt)	138	245	253	--	29	15	30	42	--	5
Vegetable oils (mt)	1,173	1,162	1,311	--	77	555	493	725	--	57
Beverages excl. fruit juices (1,000 hectoliters) 1/	15,488	15,547	15,583	--	1,315	1,848	1,923	2,008	--	167
Coffee, tea, cocoa, spices (mt)	1,940	1,915	1,842	--	147	6,099	4,868	4,274	--	324
Coffee, incl. products (mt)	1,223	1,206	1,050	1,000	80	4,400	3,233	2,600	2,800	206
Cocoa beans & products (mt)	507	503	562	530	46	1,189	1,087	1,164	1,000	75
Rubber & allied gums (mt)	801	824	846	875	88	615	714	949	1,000	101
Other	--	--	--	--	--	885	868	931	--	101
Total	--	--	--	--	--	20,875	20,650	21,011	21,000	1,946

*Fiscal Years begin Oct. 1 & end Sept. 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1.347 million dollars 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11.095 million m. tons. 7/ Less than \$500. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*				May	Change from year* earlier				May
	1986	1987	1988	1989 F	1989	1986	1987	1988	1989 F	1989
	\$ million					Percent				
Western Europe	6,848	7,219	8,029	7,400	475	-5	5	11	-7	-16
European Community (EC-12)	6,432	6,787	7,513	6,900	438	-4	5	11	-8	-16
Belgium-Luxembourg	361	423	429	--	28	-23	17	1	--	16
France	431	495	565	--	33	9	15	14	--	-3
Germany, Fed. Rep.	1,001	1,266	1,306	--	59	11	26	3	--	-28
Italy	693	733	713	--	50	2	6	-3	--	-8
Netherlands	2,042	1,954	2,087	--	122	6	-4	7	--	-15
United Kingdom	628	666	819	--	48	0	6	23	--	-13
Portugal	308	271	340	--	32	-39	-12	25	--	74
Spain, incl. Canary Islands	723	658	848	--	36	-13	-9	29	--	-49
Other Western Europe	415	432	516	500	37	-19	4	20	0	-22
Switzerland	128	145	191	--	12	-45	13	32	--	-17
Eastern Europe	447	453	559	400	38	-16	1	23	-33	-46
German Dem. Rep.	52	66	67	--	3	-36	27	0	--	-69
Poland	42	63	167	--	6	-66	50	165	--	-79
Yugoslavia	134	131	104	--	3	-2	-2	-21	--	-48
Romania	112	115	93	--	5	27	3	-19	--	-73
USSR	1,105	659	1,934	3,400	385	-56	-40	193	79	45
Asia	10,494	11,990	15,928	18,400	1,581	-12	14	33	16	19
West Asia (Mideast)	1,243	1,664	1,903	2,100	201	-14	34	14	11	21
Turkey	111	117	120	--	9	-13	5	3	--	-52
Iraq	335	528	735	900	84	-10	58	39	29	47
Israel	255	244	334	--	19	-15	-4	37	--	-2
Saudi Arabia	335	489	464	400	59	-12	46	-5	-13	33
South Asia	517	345	805	--	68	-14	-33	133	--	39
Bangladesh	94	111	107	--	5	-54	18	-3	--	143
India	90	93	354	--	11	-30	3	281	--	-50
Pakistan	285	98	276	500	36	25	-66	181	67	101
China	83	235	613	1,400	104	-65	183	161	133	241
Japan	5,139	5,554	7,274	7,900	683	-9	8	31	8	10
Southeast Asia	724	708	1,015	--	92	-14	-2	43	--	-6
Indonesia	172	152	238	--	24	-16	-12	56	--	7
Philippines	269	259	345	400	32	-6	-4	33	33	-23
Other East Asia	2,788	3,485	4,318	4,700	434	-11	25	24	9	20
Taiwan	1,109	1,354	1,577	1,600	136	-17	22	16	0	-4
Korea, Rep.	1,277	1,693	2,250	2,500	249	-9	33	33	11	37
Hong Kong	400	436	488	600	49	1	9	12	20	31
Africa	2,134	1,784	2,272	2,400	193	-16	-16	27	6	9
North Africa	1,401	1,279	1,659	1,800	151	16	-9	30	8	14
Morocco	159	196	193	--	8	2	23	-2	--	50
Algeria	329	244	537	700	57	50	-26	120	30	-4
Egypt	875	761	786	900	86	14	-13	3	15	74
Sub-Sahara	733	505	613	600	43	-44	-31	21	0	-4
Nigeria	158	67	44	--	3	-57	-58	-35	--	168
Rep. S. Africa	70	49	85	--	6	-63	-30	74	--	-29
Latin America & Caribbean	3,598	3,765	4,401	4,800	415	-21	5	17	9	9
Brazil	445	418	176	100	9	-20	-6	-58	-50	91
Caribbean Islands	752	829	867	--	81	-2	10	5	--	28
Central America	334	377	413	--	40	-7	13	10	--	5
Colombia	137	115	178	--	14	-42	-16	55	--	-11
Mexico	1,114	1,215	1,726	2,100	225	-29	9	42	24	25
Peru	108	140	174	--	3	2	30	24	--	-67
Venezuela	493	459	597	600	23	-32	-7	30	0	-50
Canada	1,466	1,776	1,973	2,000	224	-15	21	11	0	33
Oceania	216	230	238	200	16	6	6	3	0	5
Total	26,309	27,876	35,334	39,000	3,327	-16	6	27	10	12
Developed countries	13,954	15,031	17,883	17,900	1,419	-8	8	19	0	2
Less developed countries	10,719	11,498	14,346	15,900	1,382	-15	7	25	11	-14
Centrally planned countries	1,636	1,347	3,106	5,200	527	-50	-18	131	68	44

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1988 began Oct. 1, 1987 & ended Sept. 30, 1988. F = forecast.

-- = not available.

Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.

Farm Income

Table 32.—Farm Income Statistics

	Calendar year										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ billion										
1. Farm receipts	133.8	142.0	144.1	147.1	141.1	146.8	149.1	140.6	145.3	157.2	158 to 168
Crops (incl. net CCC loans)	62.3	71.7	72.5	72.3	67.1	69.5	74.3	64.0	63.8	72.6	75 to 79
Livestock	69.2	68.0	69.2	70.3	69.4	73.0	69.8	71.5	75.7	78.9	78 to 82
Farm related 1/	2.2	2.3	2.5	4.5	4.5	4.4	5.0	5.1	5.8	5.7	5 to 7
2. Direct Government payments	1.4	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14.5	9 to 12
Cash payments	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.6	8.0	8 to 10
Value of PIK commodities	0.0	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7.0	1 to 2
3. Total gross farm income (4+5+6) 2/	150.7	149.3	166.4	163.5	153.1	174.9	166.4	160.4	171.6	177.6	187 to 192
4. Gross cash income (1+2)	135.1	143.3	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	170 to 175
5. Nonmoney income 3/	10.6	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	10.3	8 to 10
6. Value of inventory change	5.0	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.7	-1.4	-4.3	4 to 7
7. Cash expenses 4/	101.7	109.1	113.2	112.8	113.5	116.6	110.2	100.7	104.3	111.7	116 to 120
8. Total expenses	123.3	133.1	139.4	140.0	140.4	142.7	134.0	122.4	124.5	132.0	136 to 140
9. Net cash income (4-7)	33.4	34.2	32.8	37.8	36.9	38.6	46.7	51.8	57.7	59.9	52 to 57
10. Net farm income (3-8)	27.4	16.1	26.9	23.5	12.7	32.2	32.4	38.0	47.1	45.7	48 to 53
Deflated (1982\$)	34.9	18.8	28.6	23.5	12.2	29.9	29.2	33.4	40.0	37.6	39 to 43
11. Off-farm income	33.8	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	51.7	51 to 55
12. Loan changes 5/:											
Real estate	13.0	9.9	9.1	3.8	2.3	-1.1	-6.0	-9.2	-7.7	-4.0	0 to 3
13. 5/:	11.2	5.3	6.5	3.4	0.9	-0.8	-9.6	-10.7	-4.9	1.0	0 to 2
Non-real estate											
14. Rental income plus monetary change	6.3	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	8.0	7 to 9
15. Capital expenditures 5/	20.1	18.0	16.8	13.3	12.7	12.5	9.2	8.5	9.8	10.2	10 to 12
16. Net cash flow (9+12+13+14-15)	43.8	37.6	37.8	38.1	32.7	33.1	30.7	31.2	42.1	52.7	48 to 58

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Andy Bernat (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

Table 66: Balance sheet, 1979 to 1989 (billion dollars)											
	Calendar year 1/										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ billion										
Assets											
Real estate	706.1	782.4	784.7	748.8	738.7	637.7	555.9	507.3	518.5	546.0	580 to 590
Non-real estate	201.6	213.2	212.0	212.2	205.6	209.0	190.5	182.2	187.8	202.5	196 to 202
Livestock & poultry	61.4	60.6	53.5	53.0	49.7	49.6	46.3	47.6	57.9	65.7	65 to 69
Machinery & motor vehicles	85.8	93.1	101.4	102.0	100.8	96.9	87.6	80.3	73.9	74.7	74 to 78
Crops stored 2/	29.2	33.0	29.1	27.7	23.9	29.7	23.6	19.1	20.9	26.2	18 to 22
Financial assets	25.3	26.5	28.0	29.5	31.3	32.8	33.0	35.2	35.2	35.9	35 to 37
Total farm assets	907.7	995.6	996.7	961.0	944.3	846.7	746.4	689.5	706.3	748.5	780 to 790
Liabilities											
Real estate debt 3/	79.7	89.6	98.7	102.5	104.8	103.6	97.6	88.6	81.1	76.7	75 to 79
Non-real estate debt 4/	71.8	77.1	83.6	87.0	87.9	87.1	77.5	66.6	62.0	61.7	60 to 64
Total farm debt	151.6	166.8	182.3	189.5	192.7	190.7	175.1	155.1	143.1	138.4	134 to 142
Total farm equity	756.1	828.9	814.4	771.5	751.6	656.0	571.3	534.4	563.3	610.0	643 to 653
	Percent										
Selected ratios											
Debt-to-assets	16.7	16.8	18.3	19.7	20.4	22.5	23.5	22.5	20.3	18.5	17 to 18
Debt-to-equity	20.1	20.1	22.4	24.6	25.6	29.1	30.6	29.0	25.4	22.7	21 to 22
Debt-to-net cash income 454	488	488	556	497	523	493	375	299	248	231	243 to 253

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

Table 34.—Cash Receipts from Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1987	1988	Apr 1989	May 1989	1987	1988	Apr 1989	May 1989	1987	1988	Apr 1989	May 1989
	\$ million 2/											
North Atlantic												
Maine	228	216	19	19	184	188	27	24	412	404	45	43
New Hampshire	67	60	5	5	72	77	7	5	139	137	12	10
Vermont	377	352	29	31	45	59	4	3	422	405	33	36
Massachusetts	121	105	9	9	259	297	20	16	379	402	29	26
Rhode Island	13	13	1	1	64	65	6	4	77	78	7	6
Connecticut	191	180	14	14	194	202	21	16	385	382	35	30
New York	1,809	1,781	152	158	800	824	55	40	2,610	2,605	207	198
New Jersey	195	192	16	17	438	450	39	35	633	642	55	52
Pennsylvania	2,310	2,348	197	204	904	935	82	68	3,213	3,284	278	272
North Central												
Ohio	1,616	1,604	143	151	1,862	2,025	96	103	3,478	3,629	239	254
Indiana	1,874	1,749	152	150	1,832	2,367	108	103	3,706	4,117	260	252
Illinois	2,249	2,243	166	180	3,850	4,218	279	248	6,099	6,461	445	428
Michigan	1,282	1,206	107	105	1,311	1,464	104	76	2,594	2,670	211	181
Wisconsin	4,216	4,281	353	372	799	767	45	42	5,015	5,048	400	414
Minnesota	3,561	3,364	275	297	2,270	2,743	156	176	5,831	6,107	430	473
Iowa	5,202	5,045	397	449	3,563	4,029	242	214	8,765	9,074	638	663
Missouri	2,102	2,011	162	160	1,586	1,814	73	58	3,687	3,826	235	218
North Dakota	762	849	69	48	1,601	1,574	74	88	2,363	2,423	143	136
South Dakota	1,907	1,965	136	117	820	945	38	44	2,726	2,911	174	162
Nebraska	4,857	5,336	423	455	1,967	2,643	161	197	6,824	7,979	584	652
Kansas	3,919	4,265	373	428	1,963	2,329	98	117	5,882	6,594	471	545
Southern												
Delaware	370	444	8	9	116	149	9	7	487	592	17	16
Maryland	734	768	38	37	405	459	56	29	1,140	1,226	94	66
Virginia	1,275	1,294	114	75	484	592	21	20	1,759	1,886	134	94
West Virginia	174	179	16	14	60	70	3	1	234	248	19	16
North Carolina	2,111	2,179	126	136	1,658	1,994	61	76	3,768	4,173	187	212
South Carolina	450	488	45	40	479	590	17	22	929	1,078	62	62
Georgia	1,825	2,011	95	88	1,299	1,553	62	57	3,124	3,544	157	145
Florida	1,086	1,114	101	92	4,368	4,697	735	505	5,454	5,811	836	597
Kentucky	1,507	1,538	84	77	940	992	30	25	2,448	2,530	114	102
Tennessee	1,110	1,080	84	81	874	965	39	33	1,984	2,046	123	114
Alabama	1,521	1,695	73	75	633	706	39	33	2,154	2,400	112	108
Mississippi	1,042	1,176	60	56	945	1,164	40	16	1,987	2,341	100	72
Arkansas	2,083	2,278	91	103	1,112	1,696	37	33	3,195	3,974	128	137
Louisiana	511	587	45	46	965	1,299	27	31	1,476	1,885	72	77
Oklahoma	2,066	2,284	163	185	811	1,127	52	65	2,877	3,410	215	250
Texas	6,092	6,498	441	553	2,907	3,783	218	198	8,998	10,281	659	751
Western												
Montana	747	816	54	47	608	570	36	30	1,355	1,386	90	77
Idaho	924	1,033	89	88	1,164	1,258	107	85	2,089	2,291	195	172
Wyoming	528	575	41	42	127	156	9	8	655	730	50	50
Colorado	2,323	2,655	201	221	885	1,037	81	80	3,207	3,692	282	301
New Mexico	817	910	78	53	351	362	21	23	1,168	1,272	99	75
Arizona	773	793	62	61	987	1,167	54	98	1,760	1,959	116	160
Utah	466	537	50	44	134	150	12	6	600	687	61	50
Nevada	164	150	13	14	69	79	7	3	232	229	20	17
Washington	981	1,141	95	94	1,880	2,146	162	125	2,862	3,287	256	219
Oregon	655	669	54	43	1,236	1,427	82	66	1,890	2,096	137	109
California	4,426	4,704	485	455	11,382	11,894	791	950	15,808	16,598	1,276	1,405
Alaska	11	10	1	1	19	20	1	1	30	30	2	2
Hawaii	88	89	7	8	473	479	39	40	560	568	46	48
United States	75,717	78,862	6,010	6,209	63,751	72,569	4,581	4,341	139,468	151,431	10,591	10,550

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.

Table 35.—Cash Receipts from Farming

	Annual					1988	1989					
	1983	1984	1985	1986	1987	1988	May	Jan	Feb	Mar	Apr	May
	\$ million											
Farm marketings & CCC loans*	136,567	142,439	144,135	135,539	139,468	151,431	10,963	13,368	10,976	10,584	10,591	10,550
Livestock & products	69,438	72,968	69,845	71,534	75,717	78,862	6,523	6,521	6,228	6,250	6,010	6,209
Meat animals	38,893	40,832	38,589	39,122	44,276	45,975	3,881	4,195	4,133	3,872	3,713	3,806
Dairy products	18,763	17,944	18,063	17,753	17,710	17,668	1,504	1,611	1,435	1,568	1,559	1,612
Poultry & eggs	9,981	12,223	11,211	12,661	11,480	12,864	972	542	521	651	580	630
Other	1,801	1,969	1,982	1,997	2,252	2,354	166	172	139	159	158	161
Crops	67,129	69,471	74,290	64,005	63,751	72,569	4,640	6,847	4,748	4,335	4,581	4,341
Food grains	9,713	9,740	8,993	5,638	5,581	7,700	392	604	343	292	312	430
Feed crops	15,535	15,668	22,520	17,161	13,102	15,291	708	1,426	1,262	1,104	964	949
Cotton (lint & seed)	3,705	3,674	3,687	3,605	4,087	4,668	114	730	531	60	123	91
Tobacco	2,752	2,813	2,722	1,918	1,827	2,039	0	385	17	0	21	0
Oil-bearing crops	13,546	13,641	12,474	10,571	11,159	13,699	697	1,478	714	731	515	546
Vegetables & melons	8,459	9,138	8,558	8,826	9,718	9,819	1,011	986	722	979	1,168	1,297
Fruits & tree nuts	6,056	6,733	6,957	7,246	8,257	8,877	653	558	493	259	335	162
Other	7,365	8,065	8,381	9,041	10,020	10,476	866	680	664	909	1,140	866
Government payments*	9,295	8,430	7,704	11,813	16,747	14,480	1,987	331	2,208	1,103	902	819
Total	145,862	150,869	151,839	147,352	156,215	165,911	12,950	13,699	13,184	11,687	11,493	11,369

*Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar Year									
	1980	1981	1982	1983	1984	1985	1986 R	1987 R	1988 R	1989 F
	\$ million									
Feed	20,971	20,855	18,592	21,725	19,852	18,015	16,179	16,898	20,962	20,000 to 24,000
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	11,845	12,812	11,000 to 14,000
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,138	3,000 to 4,000
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	31,752	36,913	36,000 to 40,000
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,258	5,787	5,610	6,400	6,000 to 8,000
Fuels & oils	7,879	8,570	7,888	7,503	7,143	6,584	4,790	4,442	4,544	4,000 to 6,000
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	2,572	2,000 to 3,000
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,484	4,588	4,716	5,000 to 6,000
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,986	17,003	17,033	18,233	18,000 to 22,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,821	7,795	7,305	7,287	7,000 to 9,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,187	7,885	7,000 to 9,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,492	15,172	15,000 to 17,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,416	6,370	6,426	6,546	6,858	7,000 to 8,000
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,890	10,821	11,202	11,000 to 13,000
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,956	2,171	2,000 to 3,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,279	4,000 to 5,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,306	8,809	6,000 to 8,000
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,771	31,452	32,328	32,000 to 36,000
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,918	17,364	17,422	17,000 to 18,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,378	4,000 to 5,000
Net rent to nonoperator landlord	6,075	6,184	6,059	5,060	8,640	8,158	6,737	7,060	7,527	7,000 to 8,000
Other overhead expenses	31,440	34,003	34,381	33,402	35,804	33,236	29,780	28,769	29,326	28,000 to 31,000
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,956	122,387	124,498	131,963	136,000 to 140,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not add because of rounding. R = Revised. F = forecast.

Information contacts: Chris McGath (202) 786-1804, Andy Bernat (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity & Function

	Fiscal year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 E	1990 E
	\$ million										
COMMODITY/PROGRAM											
Feed grains	1,286	-533	5,397	6,815	-758	5,211	12,211	13,967	9,053	4,169	7,067
Wheat	879	1,543	2,238	3,419	2,536	4,691	3,440	2,836	678	84	197
Rice	-76	24	164	664	333	990	947	906	128	692	561
Upland cotton	64	336	1,190	1,363	244	1,553	2,142	1,786	666	1,723	298
Tobacco	-88	-51	103	880	346	455	253	-346	-453	-481	-201
Dairy	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,295	658	686
Soybeans	116	87	169	288	-585	711	1,597	-476	-1,676	-19	168
Peanuts	28	28	12	-6	1	12	32	8	7	6	4
Sugar	-405	-121	-5	49	10	184	214	-65	-246	0	0
Money	9	8	27	48	90	81	89	73	100	66	56
Wool	35	42	54	94	132	109	123	152	1/ 5	95	110
Operating expense 2/	157	159	294	328	362	346	457	535	614	623	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	206	347
Export programs 3/	-669	-940	65	398	743	134	102	276	200	122	106
Other	-113	1,340	-225	-1,542	1,295	-314	486	371	1,695	5,540	1,314
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,484	11,348
FUNCTION											
Price-support loans (net)	-66	174	7,015	8,438	-27	6,272	13,628	12,199	4,579	-138	1,500
Direct payments											
Deficiency	79	0	1,185	2,780	612	6,302	6,166	4,833	3,971	5,559	6,024
Diversification	56	0	0	705	1,504	1,525	64	382	8	-1	0
Dairy termination	0	0	0	0	0	0	489	587	260	110	211
Other	25	0	0	0	0	0	27	60	0	45	0
Disaster	258	1,030	306	115	1	0	0	0	6	0	0
Total direct payments	418	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,245	5,713	6,235
1988 crop disaster	0	0	0	0	0	0	0	0	0	3,750	0
Emergency livestock/ forage assistance	23	329	16	0	0	0	0	0	31	608	201
Purchases (net)	1,681	1,602	2,031	2,540	1,470	1,331	1,670	-479	-1,131	390	60
Producer storage payments	254	32	679	964	268	329	485	832	658	343	141
Processing, storage, & transportation	259	323	355	665	639	657	1,013	1,659	1,113	602	780
Operating expense 2/	157	159	294	328	362	346	457	535	614	623	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	206	347
Export programs 3/	-669	-940	65	398	743	134	102	276	200	122	106
Other	177	1,107	-281	-1,607	679	-648	329	305	1,757	1,265	1,343
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,484	11,348

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Does not include CCC transfers to general sales manager. 3/ Includes export guarantee program, direct export credit program, and CCC transfers to the general sales manager. E = Estimated in the fiscal 1990 mid-session review. Fiscal 1990 estimated outlays do not incorporate the impact of the Drought Assistance Act of 1989. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.

Food Expenditures

Table 38.—Food Expenditure Estimates

	Annual			1989			1989 year-to-date		
	1986	1987	1988	Apr	May P	June P	Apr	May	June P
\$ billion									
Sales 1/									
Off-premise use 2/	237.1	244.9	255.7	21.9	23.1	23.0	85.6	108.7	131.7
Meals and snacks 3/	158.2	174.2	186.8	16.2	16.7	16.9	61.2	77.8	94.8
1988 \$ billion									
Sales 1/									
Off-premise use 2/	257.6	255.2	255.7	20.6	21.6	21.5	81.6	103.2	124.8
Meals and snacks 3/	171.3	181.3	186.8	15.6	16.0	16.2	59.4	75.4	91.6
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	3.3	3.3	4.4	5.8	8.2	6.7	6.6	6.9	6.9
Meals and snacks 3/	6.7	10.1	7.2	5.9	5.6	5.0	6.8	6.5	6.3
Percent change from year earlier (1988 \$ bil.)									
Sales 1/									
Off-premise use 2/	.3	-.8	-.2	-1.8	.1	-.6	-.9	-.7	-.7
Meals and snacks 3/	2.7	5.8	3.0	1.2	.8	.4	2.1	1.9	1.6

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations and home production. 3/ Excludes donations, child nutrition subsidies, and meals furnished to employees, patients, and inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, not alcoholic beverages and pet food, which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced and consumed on farms and food furnished to employees; (4) this series includes all sales of meals and snacks. PCE includes only purchases using personal funds, excluding business travel and entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug. 1987.

Information contact: Alden Manchester (202) 786-1880.

Transportation

Table 39.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1989						
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.7	100.1	104.8	104.9	105.8	105.9	105.9 P	106.1 P	106.1 P	106.4 P
Farm products	99.6	99.3	105.6	104.9	108.9	108.4	109.0 P	109.0 P	108.6 P	107.7 P
Grain	98.9	98.7	105.4	104.3	109.2	109.2	109.2 P	109.2 P	108.8 P	107.8 P
Food products	99.9	98.6	103.2	103.7	103.8	103.7	103.2 P	103.1 P	103.3 P	103.8 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	24.4	29.0	30.7	33.3	30.2 P	29.8 P	31.8 P	30.1 P	25.9 P	27.3 P
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	629	588	532	787	374	419	455	502	763	709
Rail (1,000 cwt) 3/ 4/	563	660	606	798	701	583	686	571	683	900
Truck (1,000 cwt) 3/ 4/	9,031	9,137	9,534	11,938	8,896	8,650	9,391	10,293	11,301	12,277
Cost of operating trucks										
hauling produce 5/										
Owner operator (cts./mile)	113.1	116.3	118.7	118.5	121.3	122.1	122.9	124.1	123.5	123.4
Fleet operation (cts./mile)	113.6	116.5	118.4	118.0	121.0	121.4	121.9	123.1	122.6	122.7

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1988 & 1989. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

Indicators of Farm Productivity

Table 40.—Indexes of Farm Production Input Use & Productivity¹

(See the March 1989 Issue.)

Information contact: Jim Hauver (202) 786-1459.

Food Supply and Use

Table 41.—Per Capita Consumption of Major Food Commodities

(See the March 1989 Issue.)

Information contact: Judy Putnam (202) 786-1870.

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